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FURTHER STUDIES ON GROWTH AND THE ECONOMIC DEPRESSION

A Comparison of Weight and Weight Increments of Elementary-School Children in 1921–27 and in 1933–34 [1]

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This paper is the third in a series reporting the results of studies on secular variation, or changes from year to year, in the growth in weight of school children. In the first paper (1), based on annual measurements during 1921–27 of the body weight of some 2,500 children attending the elementary schools in Hagerstown, Md., it was shown that averages of the actual weight of children of given age and sex did not vary a statistically significant amount from year to year during the interval from 1921 through 1927. On the other hand, it was found that average annual *increments* of weight did vary significantly from year to year. The latter finding was construed as meaning that certain years are apparently good while others are poor "growing years." The second paper (2), utilizing records of weight of elementary-school children in the same city in 1933, was concerned primarily with possible secular changes in the actual weight of children which may have occurred concomitantly with the recent economic depression. Among other things, it was shown (*a*) that averages of weight of children from 6 to 11 years of age did not differ significantly in 1933 from similar averages based on weights recorded during 1921

[1] From the Office of Field Investigations in Child Hygiene, United States Public Health Service, in cooperation with the Department of Biostatistics (Paper No. 199) of the School of Hygiene and Public Health, the Johns Hopkins University.

This is the sixth in a series of papers published under the general heading "Hagerstown Growth Studies." The following is a list of the earlier papers:

No. 1. Palmer, C. E.: (1933) Seasonal variation of average growth in weight of elementary-school children. Pub. Health Rep., vol. 48, pp. 211–233. Reprint No. 1561.

No. 2. ————: (1933) Variation of growth in weight of elementary-school children 1921–1928. Pub. Health Rep., vol. 48, pp. 993–1005. Reprint No. 1591.

No. 3. ————: (1933) Growth and the economic depression. A study of the weight of elementary-school children in 1921–27 and in 1933. Pub. Health Rep., vol. 48, pp. 1277–1292. Reprint No. 1599.

No. 4. ————: (1934) Age changes in the physical resemblance of siblings. Child Development, vol. 5, no. 4.

No. 5. ———— and Reed, L. J.: Anthropometric studies of individual growth. I. Age, height, and rate of growth in height, elementary-school children. Human Biology. (In press.)

through 1927; (*b*) that the variability in weight was substantially the same in 1933 as in the earlier period, with the probable exception of a slight increase in the proportion of younger girls found to be 12 or more percent below average weight; and (*c*) that, in spite of the marked changes which have occurred recently in the economic stratification of the population, approximately the same difference in the weight of children from the various economic classes was found to exist as is usually observed in studies of this kind.

The present paper, based on the earlier weight records supplemented by weighings recorded in 1934, has for its aim the extension of the findings previously reported. By means of the data collected, it is possible to compare both actual weight and annual gains in weight of children attending the elementary schools in Hagerstown in 1933–34 with similar data for Hagerstown children for the separate years during 1921–27. In addition to studies on the secular variations in growth in weight, the data collected permit the investigation of the differences in weight and weight increments in 1933 and 1934 for children from families in different economic classes.

MATERIAL AND METHODS

Details concerning the material collected in 1921–27 and in 1933 are given fully in the earlier papers. It will suffice here, therefore, to review briefly the source and character of those data and to indicate the nature of the new material.

Thus, as part of an extensive study of the growth of children undertaken by the United States Public Health Service during 1921–27 in Hagerstown, Md., nearly continuous seriatim annual measurements of weight were recorded for approximately 2,500 white children attending the elementary schools. Practically all of the measurements recorded during this period were made by the same person, a competent field worker from the Office of Child Hygiene. Weights were recorded to the nearest quarter pound on carefully calibrated beam scales. The children were weighed in their regular indoor clothing except for shoes, coats, sweaters, and vests. The individuals measured comprised a large proportion of the white elementary-school population each year, but the group studied included only those who were weighed for four or more consecutive years.

Data collected in May 1933 consist of records of weight for practically all of the white children attending the elementary schools of the city. The same procedure for obtaining the records was employed as was used during the 1921–27 investigation. The children were weighed in their usual indoor clothes as previously, on the same beam scales, recalibrated. All of the measurements were made by one person, the present writer. In addition to the records of weight,

information was obtained as to whether or not the child's family was receiving either direct or indirect aid from the welfare society and, as well, whether or not the principal wage earner or earners in the family had full-time or only part-time employment.

The records collected in May 1934, one year from the date of the 1933 investigation, were in all essential details similar to those for 1933. Again, weights were recorded, by trained field workers, for practically all white children attending the elementary schools, and each child was questioned as to the employment of wage earners in his family and information was obtained from the city welfare society as to whether or not aid was being extended to the child's family.

The same method of analysis was used throughout these investigations. Averages and variability constants were calculated for weights and annual gains in weight of children classified into sex- and age-specific groups. Distributions of annual increments were made by calculating the differences between the child's weight in May and his weight the following May. While the interval between successive weighings was not always precisely 1 year, the number of days between weighings did not fall below 355 nor exceed 375 days. Such differences are of slight practical importance, since it has been shown (3) that the average growth in weight of children during the spring months, particularly during May, is very low, in most instances not exceeding 0.1 pound per child per month.

For the distribution of actual weights in 1934 only those children who had been weighed in 1933 were included. Thus, in May 1933, 1,269 girls and 1,245 boys between the ages of 6 and 11 were weighed, and of these children 986 girls and 978 boys were again weighed in May 1934. In making the distributions of weight, age was classified as of the birthday nearest January 1 of the year of measurement. Children classified as of a certain age in 1933 were noted as 1 year older in 1934, thus making the age range for children in 1934 from 7 to 12 years, inclusive. For the distribution of annual increments, age was classified as of the birthday nearest January 1. Thus children designated as 7 years of age for the distribution of May 1933 to May 1934 increments were those whose seventh birthday fell between July 1, 1933, and July 1, 1934.

COMPARISONS OF ACTUAL WEIGHTS IN 1921–27, IN 1933, AND IN 1934

Data necessary for these comparisons are given in table 1 and in figures 1, 2, and 3. The table shows, separately for boys and girls in yearly age classes, the mean weights, the standard deviations of weight, and the proportions of children that were 12 or more percent below the average weight of children in 1921–27. These data are given for measurements made during 1921 through 1927 and for those made in 1933 and in 1934. In the three figures are recorded

graphically the three variables, respectively, the means, the standard deviations, and the proportion of children underweight.

TABLE 1.—*Mean weights, standard deviations of weight, number of children, and percentage of children 12 percent or more below mean weight of children in 1921–27, for children weighed in 1921–27, 1933, and 1934. (White elementary-school children, Hagerstown, Md.)*

Age	Mean weight (pounds)			Standard deviation (pounds)			Number of children			Percentage of children, 12 percent or more below mean weight of children in 1921–27		
	May 1921–27	May 1933	May 1934	May 1921–27	May 1933	May 1934	May 1921–27	May 1933	May 1934	May 1921–27	May 1933	May 1934
	Boys											
6	46.83	46.23	------	5.32	5.29	------	238	121	------	14.5	17.4	------
7	50.63	49.73	51.04	6.44	5.70	5.86	596	200	102	16.0	18.0	14.7
8	55.97	55.65	54.24	7.38	7.58	5.99	839	240	157	16.9	17.9	19.7
9	61.57	60.66	60.67	8.71	7.96	8.63	987	231	200	18.5	18.2	22.0
10	67.22	67.98	66.02	10.53	10.78	9.08	992	234	187	20.8	18.8	19.3
11	73.91	74.05	74.29	12.36	10.90	13.20	868	219	198	22.7	19.6	24.2
	Girls											
6	45.78	44.91	------	5.34	5.95	------	237	114	------	11.6	23.6	------
7	49.11	49.19	49.82	6.25	7.17	8.89	573	205	92	13.6	17.1	19.6
8	54.18	54.39	54.10	7.51	9.76	8.62	811	241	164	15.6	22.0	20.1
9	59.50	58.38	59.67	9.25	10.74	12.19	921	236	203	19.0	23.7	26.6
10	66.07	66.20	64.31	11.50	11.30	12.81	925	233	204	23.0	21.5	29.4
11	74.10	74.80	74.32	14.29	15.21	14.51	798	240	192	27.9	27.9	29.2

Considering first the means, figure 1, it is plain that there are no clear-cut consistent differences between the lines for the three different time periods and that the time differences for the separate age-sex classes are in most cases very small and obviously statistically insignificant. For girls, the irregularities of the differences for the separate time periods are so great that no particular significance can be attached even to an occasional large fluctuation—such, for example, as the difference of 1.24 pounds between the mean of 10-year-old girls in 1921–27 and the mean of 10-year-old girls in 1933.

For boys, the differences are not so clearly irregular. In 1933 the means for 6-, 7-, 8-, and 9-year olds are less than in 1921–27, and in 1934 the means for 8-, 9-, and 10-year olds are less than those for both the 1921–27 and 1933 periods. Considering the differences of the means for the age classes separately, it was found, however, that the only statistically significant difference between the 1921–27 and 1934 means was for 8-year-old boys. A mathematical test [2] for the statistical significance of the whole series of differences between the 1933 and 1921–27 averages shows that these two series of means are not significantly different. A similar test of the significance of the

[2] See reference (4).

differences between the 1934 and 1921–27 series of averages shows that the whole series of observed differences would occur only 5 in

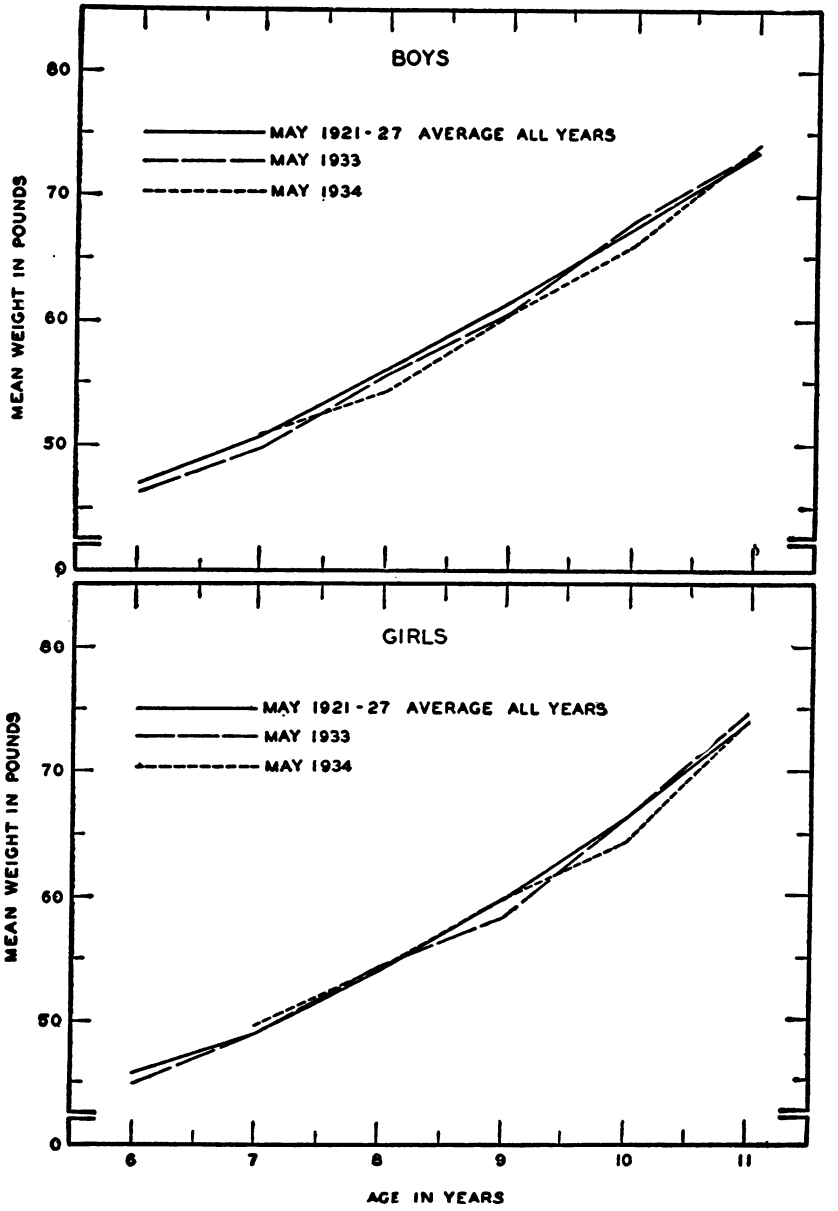

FIGURE 1.—Mean weight of elementary-school children in 1921–27 (average of all years), in 1933, and in 1934. (Age at birthday nearest January 1 of school year.)

100 times by chance alone. It is apparent, therefore, that the weights of boys between 7 and 11 years of age in Hagerstown in 1934 may be slightly less than those for boys of the same age in the same city

during the interval between 1921 and 1927. However, because the significance of the difference between the 1921–27 and 1934 series is

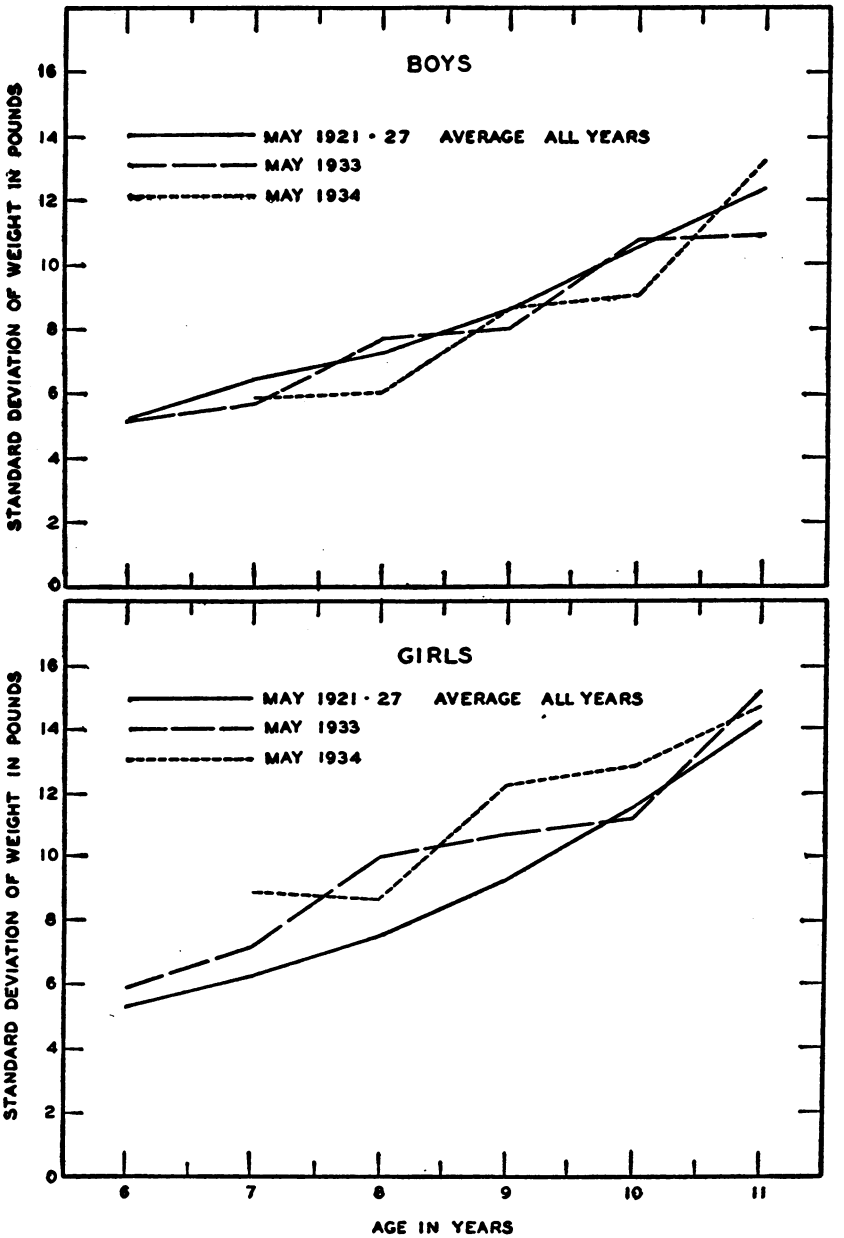

FIGURE 2.—Standard deviations of weight of elementary-school children in 1921–27 (average of all years), in 1933, and in 1934. (Age at birthday nearest January 1 of school year.)

due primarily to the large difference between the means of 8-year-old boys, no great importance can be attached to the findings.

. In figure 2 are shown the standard deviations of the weights of children for the three time periods. Study of these data indicates, so far as boys are concerned, that there are no significant differences in the variability of weight in the three periods. Comparison of the standard deviations for girls, however, shows that this measure of variation tends to be greater both in 1933 and in 1934 than in 1921–27. Thus at each age level the standard deviations in 1934 are larger than those calculated in 1921–27, and in 1933 the standard deviations are larger for the 6-, 7-, 8-, and 9-year-old girls. This finding is fairly suggestive, therefore, that the past few years of the economic disturbance has been associated with an increase in the variability of body weight of girls. In this connection it must be remembered, however, that all of the individuals weighed in 1934 were among those weighed in 1933 and, except for possible selection factors, characteristics noted in 1933 would tend to be present in 1934. Thus the variability of measurements in 1934 is probably correlated with the variability in 1933, and the findings for the 2 years cannot be considered independent observations.

As a further study of the changes in the weights of children during the past decade, the percentage of children 12 percent or more below averages of weight in 1921–27 were calculated, and are shown graphically in figure 3. It is clear, from these data, that there are no consistent changes for either 1933 or 1934 in the proportion of boys below the standard of weight recorded for the 1921–27 period. For the girls, however, it is plain that a somewhat larger proportion was underweight in both 1933 and 1934 than was found in the earlier period. In order to view these results in a slightly different manner, the actual number of children observed in the underweight classes in 1933 and in 1934 were compared with the number that would have been observed had the same proportions been underweight as were underweight in the 1921–27 period. According to these calculations the actual and theoretical numbers of underweight children are as follows:

	Boys	*Girls*
Observed number underweight in 1933	229	288
Theoretical number underweight in 1933	233	247
Difference (observed minus theoretical)	−4	41
Observed number underweight in 1934	174	221
Theoretical number underweight in 1934	164	177
Difference (observed minus theoretical)	10	44

The differences both in 1933 and in 1934 between the observed and expected numbers of underweight boys are small and not statistically significant, indicating that there has been no definite increase in this measure of lowered body weight in boys which has been asso-

ciated with the depression. The observed number of underweight girls, however, is greater by 41 in 1933 and by 44 in 1934 than would have been found had the same proportion been underweight as was found in 1921–27. These increases, while not striking, are statistically significant, and it may be concluded that there has been a definite

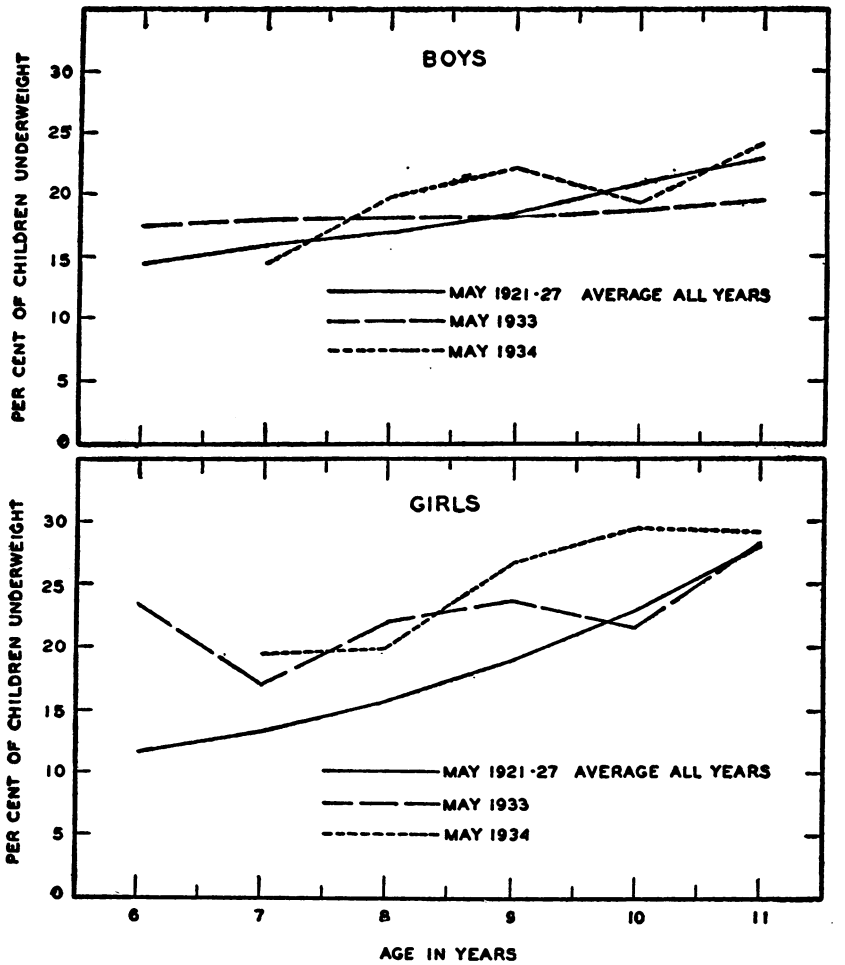

FIGURE 3.—Percentages of elementary-school children weighed in 1921-27, in 1933, and in 1934 that were 12 percent or more below the average weight of children of the same age and sex in 1921-27. (Age at birthday nearest January 1 of school year.)

increase in the relative number of underweight girls during the past few years. Again it must be recalled that the children measured in 1934 are among those measured in 1933 and that the number found underweight in 1934 is correlated, at least to some extent, with the number underweight in 1933.

TABLE 2.—*Means, standard deviations, and number of children for distributions of annual (May-to-May) gains in weight, all years combined for 1921–27 and for 1933–34. (White-elementary school children, Hagerstown, Md.)*

Age	Mean annual gain in weight (pounds)		Standard deviation of annual gains (pounds)		Number of children	
	1921–27	1933–34	1921–27	1933–34	1921–27	1933–34
	Boys					
7	4.75	4.59	1.70	2.48	259	102
8	5.57	4.86	1.99	2.51	667	157
9	5.81	5.22	2.33	2.90	867	200
10	6.13	5.38	2.67	3.21	891	187
11	6.80	6.27	3.24	4.01	795	198
12	7.87	7.41	4.24	4.18	621	128
	Girls					
7	4.76	4.23	2.26	2.70	266	92
8	5.12	4.84	2.18	2.40	639	164
9	5.78	5.33	2.85	3.46	805	203
10	6.78	5.93	3.41	3.64	819	204
11	8.52	7.70	4.39	4.61	735	192
12	10.79	10.60	5.00	5.37	573	131

COMPARISON OF ANNUAL GAINS IN WEIGHT IN 1933–34 WITH THOSE IN 1921–27

Table 2 and figure 4 give data for the comparison of the annual gains in weight based on May-to-May weighings, for the years 1921 through 1927 taken altogether, with those for 1933–34. It will be noted that for each age-sex class the average annual increment is less for the year 1933–34 than the average for the earlier period. The differences between the averages range from 0.2 to 0.8 pound and are approximately the same for both sexes. A summary estimate of the total reduction of growth in weight in 1933–34, calculated as the weighted average of the ratio $\frac{\text{Average annual gain in weight, 1933–34}}{\text{Average annual gain in weight, 1921–27}}$ for the several age-sex groups, shows that growth in weight was only 91.3 percent as great in the later as in the earlier years. This finding alone would indicate that growth in weight was very much reduced during the past year. However, this reduction in annual gains can be evaluated completely only in the light of the secular variations in growth in weight. Data for such an evaluation are given in the paper (1) referred to above which shows, for Hagerstown elementary-school children, the fluctuations in annual increments each year during the period 1921 through 1927. According to the analysis given there, it is shown that a marked fluctuation in annual gains occurs in different calendar years. For example, the ratio of annual gain in 1924–25 was only 91.5 percent of the standard based on the entire 1921–27 period, while the ratio for 1926–27 was 105.5 percent of the same standard.

Thus, while growth during 1933–34 is much less than the average of the earlier years, it is not significantly less than the annual gains for the year 1924–25. It becomes necessary to conclude, then, that the school year 1933–34 was as good a "growing year", despite the depression,

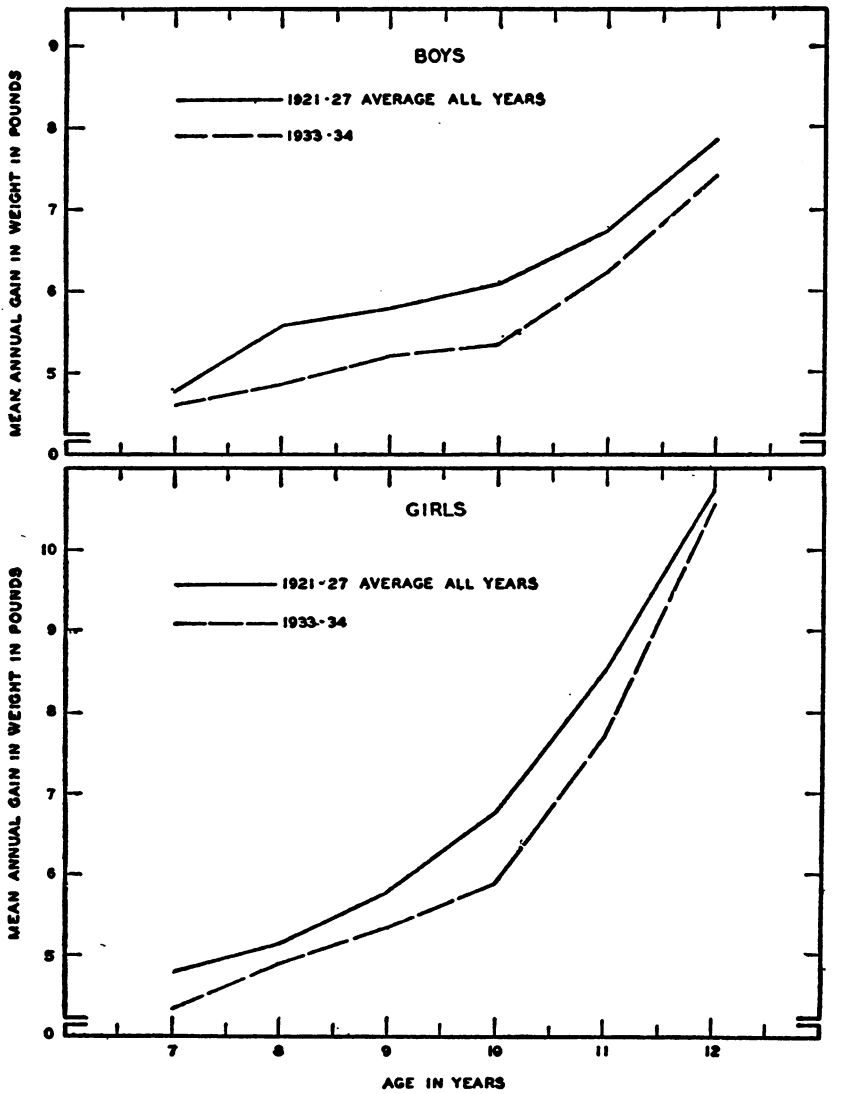

FIGURE 4.—Mean annual gain in weight of elementary-school children in 1921–27 (average of all years), and in 1933–34. (Age at birthday nearest January 1 of school year.)

as at least one other year when the general economic status of the population was presumably much higher. On the other hand, since the many factors which may be effective in making some years good and others poor "growing years" are not known, it is impossible to state conclusively that the depression has not affected adversely the

growth in weight of children. It is quite conceivable, for example, that the year 1924–25 appears as a poor "growing year" because of the influence of several factors which are adverse to growth, while in the year 1933–34 these factors did not operate, but the decrease in growth was brought about by other factors directly attributable to the economic depression. However, the results of this study of annual increments, together with observation that the *actual* weights of the children in Hagerstown have not materially decreased during the past decade, make it seem reasonable to conclude that there is no clear-cut evidence that the recent economic depression has affected markedly the growth in weight of this representative sample of school children.

TABLE 3.—*Mean weights and number of children in 1933 and 1934 whose families were receiving or were not receiving aid from the welfare society. (White elementary-school children, Hagerstown, Md.)*

Age	Mean weight				Number of children			
	1933		1934		1933		1934	
	Receive aid	Do not receive aid	Receive aid	Do not receive aid	Receive aid	Do not receive aid	Receive aid	Do not receive aid
	Boys							
7	47.56	50.89	47.21	51.65	70	130	14	88
8	52.60	56.34	51.50	54.94	44	196	32	125
9	57.96	61.63	57.17	61.15	61	170	24	176
10	63.24	69.23	61.81	66.70	49	185	26	161
11	69.71	75.27	67.58	75.30	48	171	26	172
	Girls							
7	47.35	49.80	48.40	49.99	51	154	10	82
8	52.64	55.07	52.30	54.39	67	174	23	141
9	55.37	59.53	56.95	59.98	65	171	21	182
10	63.25	67.09	58.14	65.34	54	179	29	175
11	67.80	76.64	69.15	74.92	50	190	20	172

COMPARISON OF WEIGHT AND ANNUAL GAINS IN WEIGHT OF CHILDREN FROM DIFFERENT ECONOMIC CLASSES

Table 3 and figure 5 give data for comparing the actual weights of children whose families did and did not receive aid from the city welfare society in 1933 and in 1934. It will be noted that the averages are from 2 to 9 pounds less for children from families that were assisted by welfare funds and, also, that the differences between the two groups are approximately the same in both years. In general, these differences are statistically significant; and it may be concluded that, so far as weight is concerned, children from families that receive welfare help comprise a group of low-weight individuals.

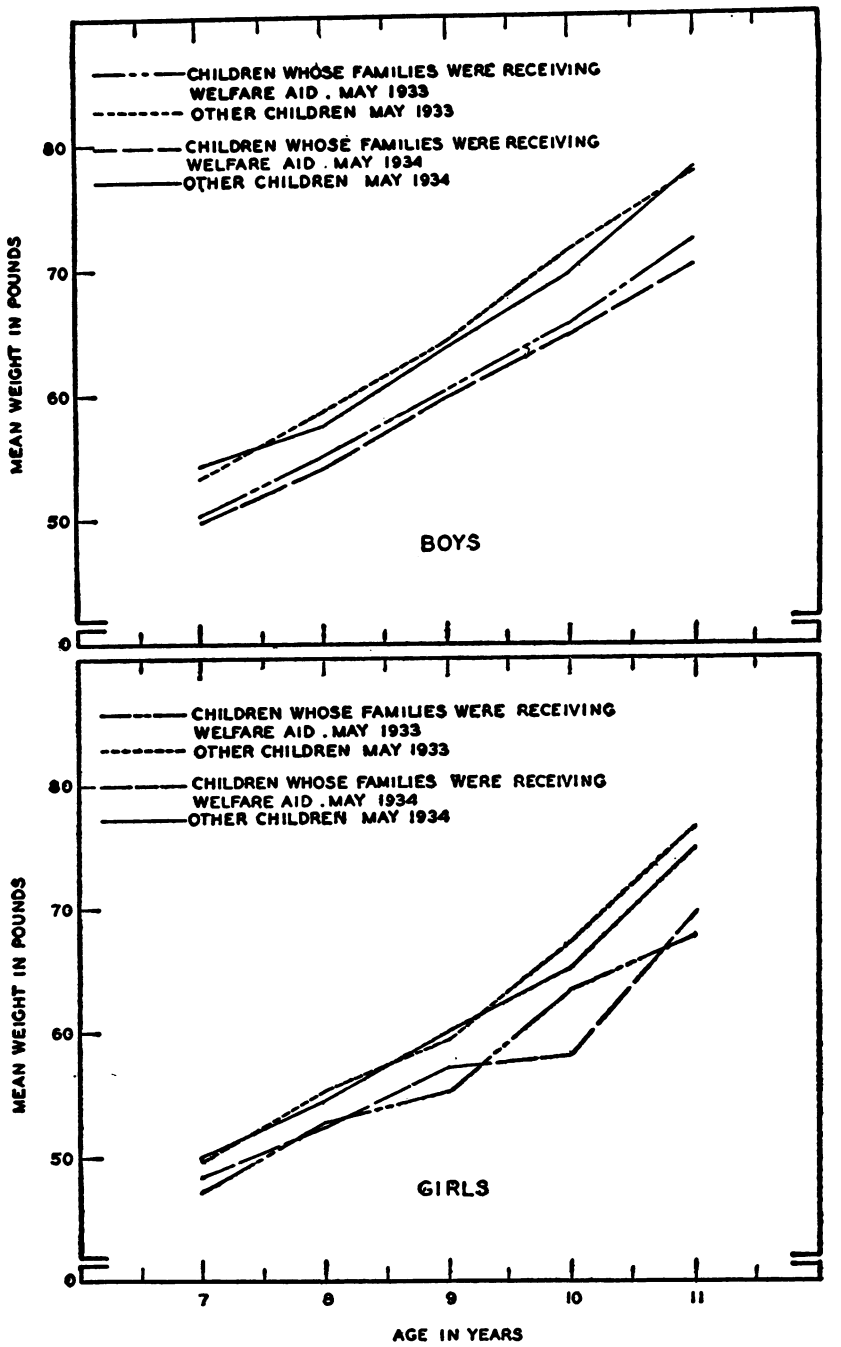

FIGURE 5.—Mean weight of elementary-school children in 1933 and 1934, classified according to whether or not the child's family received aid from the welfare society. (Age at birthday nearest January 1 of school year.)

Tables 4 and 5 and figures 6 and 7 present data for the comparison of weight *increments* of children from families grouped according to two classifications of economic status in 1934. Figure 6 shows the

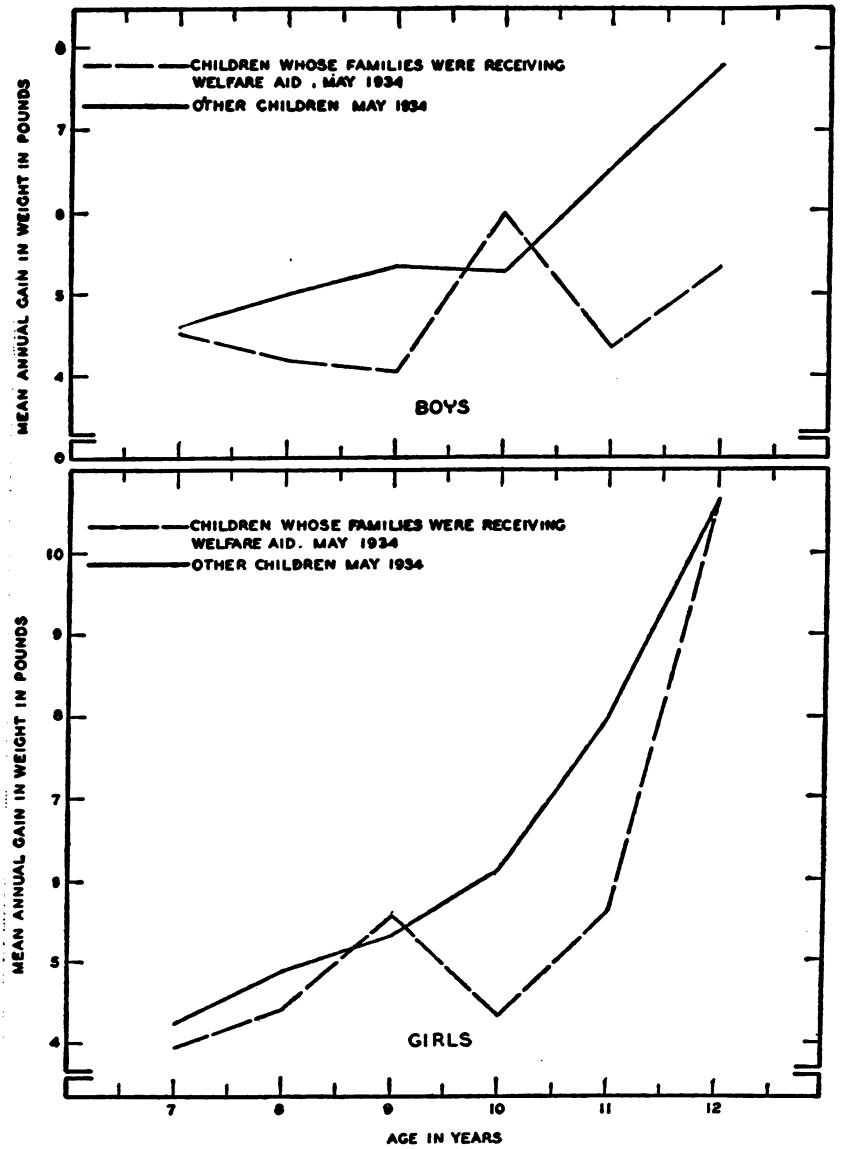

FIGURE 6.—Mean annual gain in weight of elementary-school children in 1933-34, classified according to whether or not the child's family received aid from the welfare society. (Age at birthday nearest January 1, 1934.)

average annual gains in weight for children whose families did and did not receive aid from the Hagerstown Welfare Society. The lines representing children whose families were receiving aid show marked irregularities, due probably to the small numbers of cases; with the

exception of 10-year-old boys and 9-year-old girls, however, the gains made by children of these families are less than those of children whose families did not receive assistance. This finding, taken together

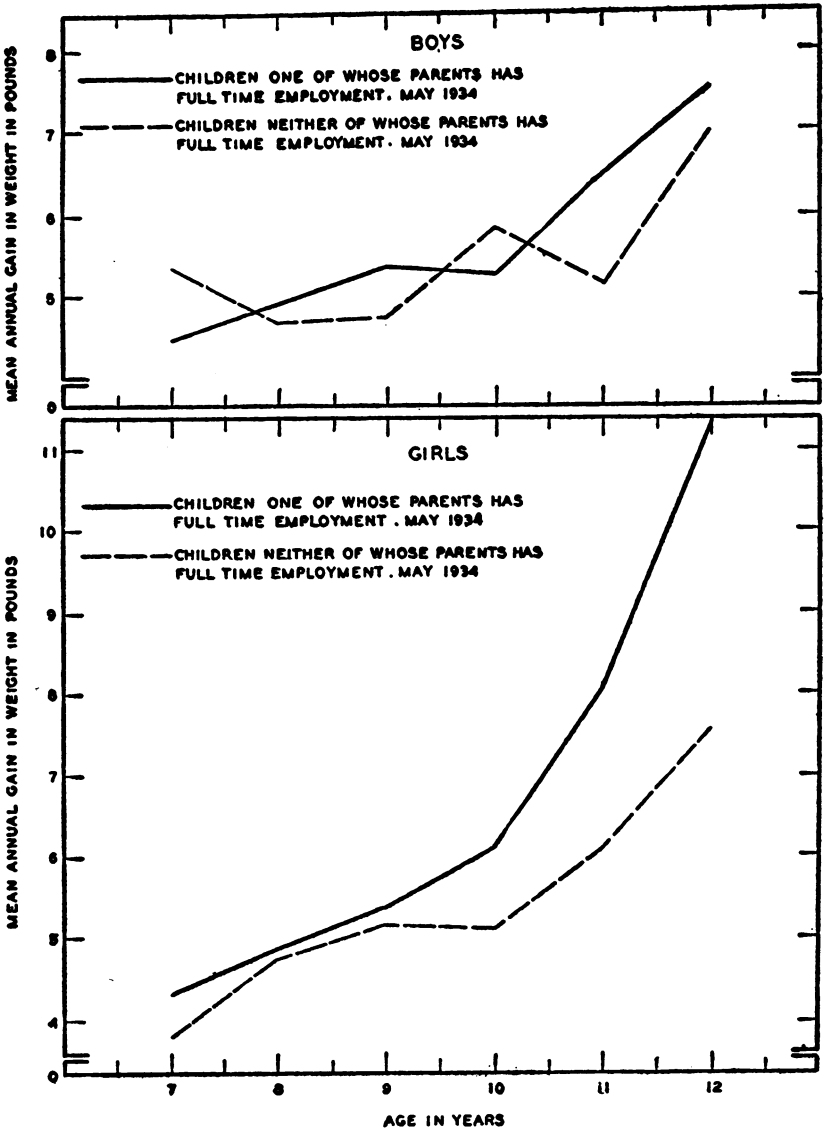

FIGURE 7.—Mean annual gain in weight of elementary-school children in 1933-34, classified according to employment of parents. (Age at birthday nearest January 1, 1934.)

with the observation noted above that these children actually weigh less, further emphasizes the fact that children from welfare families form a group of individuals who are both lighter in weight and who make lower gains in weight than children in the population as a whole;

and, while it cannot be inferred that larger expenditures of welfare funds would bring the averages of the former group up to the level of children in general, it is probably true that those children who are being helped are those who are most in need of it.

TABLE 4.—*Means, standard deviations, and number of children, for distributions of annual (May 1933–May 1934) gains in weight of children whose families were receiving or were not receiving aid from the welfare society. (White elementary-school children, Hagerstown, Md.)*

Age	Mean annual gain (pounds)		Standard deviations (pounds)		Number of children	
	Receive aid	Do not receive aid	Receive aid	Do not receive aid	Receive aid	Do not receive aid
	Boys					
7	4.52	4.60	3.06	2.38	14	88
8	4.18	5.03	2.19	2.56	32	125
9	4.04	5.38	1.43	3.01	24	176
10	5.97	5.28	5.25	2.74	26	161
11	4.36	6.55	2.67	4.11	26	172
12	5.36	7.81	3.45	4.19	21	107
	Girls					
7	3.95	4.27	1.56	2.80	10	82
8	4.41	4.91	1.61	2.50	23	141
9	5.54	5.31	2.13	3.57	21	182
10	4.34	6.19	2.51	3.74	29	175
11	5.63	7.94	2.91	4.71	20	172
12	10.54	10.61	4.65	5.50	20	111

TABLE 5.—*Means, standard deviations, and number of children, for distributions of annual (May 1933–May 1934) gains in weight, children one of whose parents was employed full time and children neither of whose parents was employed full time. (White elementary-school children, Hagerstown, Md.)*

Age	Mean annual gain (pounds)		Standard deviation of gains (pounds)		Number of children	
	Full-time employment	Not full-time employment	Full-time employment	Not full-time employment	Full-time employment	Not full-time employment
	Boys					
7	4.51	5.35	2.25	3.89	92	10
8	4.89	4.67	2.62	1.79	133	24
9	5.33	4.71	3.09	1.74	164	36
10	5.27	5.75	2.85	4.26	146	41
11	6.42	5.15	4.18	2.22	174	24
	Girls					
7	4.29	3.78	2.80	1.49	82	10
8	4.86	4.78	2.50	1.98	128	36
9	5.36	5.20	3.67	2.29	166	37
10	6.11	5.13	3.82	2.64	166	38
11	8.09	6.10	4.76	3.54	154	38

When the children measured in 1933–34 are classified as to whether the principal wage earners in their families have full-time or only part-time employment (table 5 and figure 7), it is found that the averages of children from families having at least one full-time wage earner are greater than averages of children from families in which no wage earner had regular employment. These results are based, obviously, on a very small number of observations and the differences, especially for boys, are not highly reliable. However, the differences are approximately the same as those usually found between higher and lower economic classes (5), and it seems reasonable to conclude that present economic conditions have tended neither to produce striking class differences nor to obliterate the differences previously observed.

SUMMARY

This paper is the third in a series dealing with secular variation in the growth in weight of elementary-school children in a typical small city, Hagerstown, Md. In the first paper it was shown that averages of actual weight did not, while averages of weight increments did, vary significantly from year to year during the period 1921 through 1927. In the second paper it was shown that the actual weights of children in the same city were not, after several years of severe economic depression, materially decreased in 1933. In the present paper, dealing with weights and weight increments of children in 1933 and 1934, the following results are brought forward:

1. Averages of weight of children in 1934 show no consistent or striking differences from averages of weight for the period 1921 through 1927.

2. The variability of body weight (measured by the standard deviation) is not, for boys, consistently different in 1933 and 1934 from that observed in the 1921–27 period. For girls, weight is more variable in both 1933 and 1934 than in the earlier period.

3. The proportion of boys 12 percent or more below average weight has not increased in 1933 or 1934, while the proportion of girls so designated is slightly greater, both in 1933 and in 1934, than that observed for the years 1921–27.

4. Average annual gains in weight are lower for the year 1933–34 than those calculated for the 1921–27 period. The average for the several age-sex groups, of the ratio

$$\frac{\text{Average annual gains in weight, 1933–34}}{\text{Average annual gains in weight, 1921–27}}$$

equals 91.5 percent. Comparing this ratio with similar average ratios for the separate years 1921–27 shows, however, that the relative gain for 1933–34 is not significantly lower than that recorded in 1924–25, a year in which general economic conditions

were presumably much better than in 1933–34. This finding, together with the fact that the actual weight of children has not decreased in the past decade, is taken as evidence that the recent economic depression has not materially affected the growth in weight of a representative sample of school children.

5. A supplementary study of the weights and weight increments of children from families in different levels of economic status in 1933 and 1934 shows that approximately the same differences are to be found as have been observed in times previous to the depression. From this it is concluded that there has been no obliteration or widening of class differences during the depression.

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EXTENT OF RURAL HEALTH SERVICE IN THE UNITED STATES, JANUARY 1, 1930–DECEMBER 31, 1933

According to data obtained by the United States Public Health Service from the health departments of the States, table 1 presents a list, by States, of counties, townships, or districts in which the rural sections thereof at the beginning of the calendar years 1930, 1931, and 1932, and on December 31, 1932 and 1933, respectively, were provided with health service under the administration of local whole-time health officers.

The list for the year ended December 31, 1933, includes, as it did at the close of the calendar year 1932, all counties, townships, or districts which are operating in units under the direction of local whole-time health officers maintained jointly by the pooling of local official appropriations. Also all counties, townships, or districts are included in which there are whole-time local health organizations maintained entirely by the State health departments.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*

ALABAMA

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Baldwin	Baldwin	Baldwin	Baldwin	Barbour
Barbour	Barbour	Barbour	Barbour	Blount
Blount	Blount	Blount	Blount	Bullock
Bullock	Bullock	Bullock	Bullock	Calhoun
Calhoun	Calhoun	Calhoun	Calhoun	Chambers
Chambers	Chambers	Chambers	Chambers	Cherokee
Cherokee	Cherokee	Cherokee	Cherokee	Cleburne
Choctaw	Choctaw	Choctaw	Choctaw	Conecuh
Clarke	Clarke	Clarke	Clarke	Covington
Cleburne	Cleburne	Cleburne	Cleburne	Crenshaw
Coffee	Coffee	Coffee	Coffee	Cullman
Colbert	Colbert	Colbert	Colbert	Dale
Conecuh	Conecuh	Conecuh	Conecuh	Dallas
Covington	Covington	Covington	Covington	De Kalb
Crenshaw	Crenshaw	Crenshaw	Crenshaw	Elmore
Cullman	Cullman	Cullman	Cullman	Escambia
Dale	Dale	Dale	Dale	Etowah
Dallas	Dallas	Dallas	Dallas	Franklin
De Kalb	De Kalb	De Kalb	De Kalb	Geneva
Elmore	Elmore	Elmore	Elmore	Houston
Escambia	Escambia	Escambia	Escambia	Jackson
Etowah	Etowah	Etowah	Etowah	Jefferson
Franklin	Franklin	Franklin	Franklin	Lauderdale
Geneva	Geneva	Geneva	Geneva	Lawrence
Houston	Houston	Houston	Houston	Lee
Jackson	Jackson	Jackson	Jackson	Limestone
Jefferson	Jefferson	Jefferson	Jefferson	Macon
Lamar	Lamar	Lamar	Lamar	Madison
Lauderdale	Lauderdale	Lauderdale	Lauderdale	Marengo
Lawrence	Lawrence	Lawrence	Lawrence	Marion
Lee	Lee	Lee	Lee	Marshall
Limestone	Limestone	Limestone	Limestone	Mobile
Lowndes	Lowndes	Lowndes	Lowndes	Monroe
Macon	Macon	Macon	Macon	Montgomery
Madison	Madison	Madison	Madison	Morgan
Marengo	Marengo	Marengo	Marengo	Perry
Marshall	Marion	Marion	Marion	Pickens
Mobile	Marshall	Marshall	Marshall	Pike
Monroe	Mobile	Mobile	Mobile	Shelby
Montgomery	Monroe	Monroe	Monroe	Sumter
Morgan	Montgomery	Montgomery	Montgomery	Talladega
Pickens	Morgan	Morgan	Morgan	Tallapoosa
Shelby	Perry	Perry	Perry	Tuscaloosa
Sumter	Pickens	Pickens	Pickens	Walker
Talladega	Pike	Pike	Pike	Washington
Tallapoosa	Shelby	Shelby	Shelby	Wilcox
Tuscaloosa	Sumter	Sumter	Sumter	
Walker	Talladega	Talladega	Talladega	
Washington	Tallapoosa	Tallapoosa	Tallapoosa	
Wilcox	Tuscaloosa	Tuscaloosa	Tuscaloosa	
Winston	Walker	Walker	Walker	
	Washington	Washington	Washington	
	Wilcox	Wilcox	Wilcox	
	Winston	Winston	Winston	

ARIZONA

Cochise	Cochise	Cochise	Cochise	Cochise
Coconino	Coconino	Gila	Gila	Gila
Yuma	Gila	Maricopa	Maricopa	Maricopa
	Maricopa	Pima	Pima	Pima
	Pima	Yuma		
	Yuma			

ARKANSAS

Arkansas	Arkansas	Arkansas [1]	Arkansas [1]	Ashley
Ashley	Ashley	Ashley	Ashley	Clark
Conway	Clark	Bradley	Bradley	Conway
Cross	Conway	Clark	Chicot	Crittenden
Desha	Cross	Cleburne	Clark	Cross
Drew	Desha	Conway	Cleveland	Faulkner
Garland	Drew	Crittenden	Conway	Garland
Jackson	Garland	Cross	Crittenden	Jackson

[1] 1 district of 3 counties.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

ARKANSAS—Continued

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Jefferson	Jackson	Desha	Cross	Jefferson
Little River	Jefferson	Drew	Drew	Little River
Mississippi	Little River	Garland	Garland	Lonoke
Monroe	Lonoke	Jackson	Jackson	Mississippi
Phillips	Mississippi	Jefferson	Jefferson	Monroe
Pope	Monroe	Little River	Lincoln	Ouachita
Pulaski	Ouachita	Lonoke [1]	Little River	Phillips
Saline	Phillips	Miller	Lonoke [1]	Pope
Sebastian	Pope	Mississippi	Mississippi	Pulaski
Union	Pulaski	Monroe	Monroe	Saline
White	Saline	Ouachita	Ouachita	Sebastian
Woodruff	Sebastian	Perry	Phillips	Woodruff
Yell	Union	Phillips	Pope	Yell
	White	Pope	Prairie [1]	
	Woodruff	Prairie [1]	Pulaski	
	Yell	Pulaski	Saline	
		Saline	Sebastian	
		Sebastian	Woodruff	
		Union	Yell	
		White		
		Woodruff		
		Yell		

CALIFORNIA

Contra Costa	Contra Costa	Contra Costa	Contra Costa	Contra Costa
Los Angeles	Imperial	Imperial	Imperial	Imperial
Madera	Los Angeles	Los Angeles	Los Angeles	Los Angeles
Monterey	Madera	Madera	Madera	Madera
Orange	Monterey	Monterey	Monterey	Monterey
Riverside	Orange	Orange	Orange	Orange
San Diego	Riverside	Riverside	Riverside	Riverside
San Joaquin	San Diego	San Bernardino	San Bernardino	San Bernardino
San Luis Obispo	San Joaquin	San Diego	San Diego	San Diego
Santa Barbara	San Luis Obispo	San Joaquin	San Joaquin	San Joaquin
Stanislaus	Santa Barbara	San Luis Obispo	San Luis Obispo	San Luis Obispo
Yolo	Stanislaus	Santa Barbara	Santa Barbara	Santa Barbara
	Yolo	Stanislaus	Stanislaus	Stanislaus
		Yolo	Yolo	

COLORADO

Otero	Otero	Otero		

CONNECTICUT

Fairfield [2]	Fairfield [2]	Fairfield [2]	Fairfield [2]	Fairfield [2]
			West Hartford [2]	West Hartford [2]

DELAWARE

Kent	Kent	Kent	Kent	Kent
Newcastle	Newcastle	Newcastle	Newcastle	Newcastle
Sussex	Sussex	Sussex	Sussex	Sussex

FLORIDA

Manatee	Leon	Leon	Escambia	Escambia
Sarasota	Manatee	Taylor	Leon	Leon
	Taylor		Taylor	

[1] 1 district of 3 counties.

[2] Township.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

GEORGIA

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Baldwin	Baldwin	Baldwin	Baldwin	Baldwin
Bartow	Bartow	Bartow	Bartow	Bartow
Bibb	Bibb	Bibb	Bibb	Bibb
Brooks	Brooks	Brooks	Brooks	Brooks
Chatham	Chatham	Catoosa [1]	Catoosa [2]	Catoosa [4]
Clarke	Clarke	Chatham	Chatham	Chatham
Clinch	Clinch	Chatooga [2]	Clarke	Clarke
Cobb	Cobb	Clarke	Cobb	Cobb
Coffee	Coffee	Cobb	Colquitt	Colquitt
Colquitt	Colquitt	Coffee	Dade [2]	Decatur
Crisp	Decatur	Colquitt	Decatur	De Kalb
Decatur	De Kalb	Dade [2]	De Kalb	Dougherty
De Kalb	Dougherty	Decatur	Dougherty	Floyd
Dougherty	Floyd	De Kalb	Floyd	Fulton
Emanuel	Glynn	Dougherty	Fulton	Glynn
Floyd	Grady	Floyd	Glynn	Grady
Glynn	Hall	Glynn	Grady	Hall
Grady	Jefferson	Gordon [1]	Hall	Jefferson
Hall	Jenkins	Grady	Jefferson	Jenkins
Jefferson	Laurens	Hall	Jenkins	Laurens
Jenkins	Lowndes	Jefferson	Laurens	Lowndes
Laurens	Mitchell	Jenkins	Lowndes	Mitchell
Lowndes	Richmond	Laurens	Mitchell	Richmond
Mitchell	Spalding	Lowndes	Richmond	Spalding
Richmond	Sumter	Mitchell	Spalding	Sumter
Spalding	Thomas	Murray [1]	Sumter	Thomas
Sumter	Troup	Richmond	Thomas	Troup
Thomas	Walker	Spalding	Troup	Walker [4]
Troup	Ware	Sumter	Walker [2]	Ware
Walker	Washington	Thomas	Ware	Washington
Ware		Troup	Washington	
Washington		Walker [2 3]		
Wayne		Ware		
Worth		Washington		
		Whitfield [1]		

IDAHO

Bonneville Twin Falls	Twin Falls	Twin Falls	Twin Falls	

ILLINOIS

Du Page Morgan	Du Page Morgan	Du Page	Du Page	Du Page

IOWA

	Washington Woodbury	Des Moines Washington Woodbury	Des Moines Washington Woodbury	Woodbury

KANSAS

Brown	Brown	Brown	Brown	Geary
Butler	Butler	Butler	Geary	Lyon
Cherokee	Cherokee	Cherokee	Lyon	Sedgwick
Dickinson	Dickinson	Dickinson	Marion	Shawnee
Geary	Geary	Geary	Sedgwick	
Greenwood	Greenwood	Greenwood	Shawnee	
Lyon	Lyon	Lyon		
Marion	Marion	Marion		
Ottawa	Ottawa	Sedgwick		
Sedgwick	Sedgwick	Shawnee		
Shawnee	Seward			
	Shawnee			

[1] Included in 1 district of 4 counties.
[2] Included in 1 district of 3 counties.
[3] Walker County also included in a tricounty district.
[4] Included in 1 district of 2 counties.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

KENTUCKY

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Ballard	Bell	Adair	Adair	Adair
Bell	Boyd	Allen	Allen	Allen
Boyd	Breathitt	Anderson	Anderson	Anderson
Breathitt	Bullitt	Barren	Barren	Barren
Bullitt	Calloway	Bath	Bath	Bath
Calloway	Carlisle	Bell	Bell	Bell
Carlisle	Carter	Boyd	Boyd	Boyd
Carter	Daviess	Breathitt	Breathitt	Breathitt
Daviess	Elliott	Bullitt	Bullitt	Bullitt
Elliott	Estill	Butler	Butler	Butler
Estill	Fayette	Caldwell	Caldwell	Caldwell
Fayette	Floyd	Calloway	Calloway	Calloway
Floyd	Fulton	Carlisle	Carlisle	Carlisle
Fulton	Henderson	Carter	Carter	Carter
Henderson	Hickman	Casey	Casey	Casey
Hickman	Hopkins	Clinton	Clinton	Clinton
Hopkins	Jefferson	Daviess	Daviess	Daviess
Jefferson	Kenton	Edmonson	Edmonson	Edmonson
Johnson	Knott	Elliott	Elliott	Elliott
Kenton	Knox	Estill	Estill	Estill
Knott	Lawrence	Fayette	Fayette	Fayette
Knox	Lee	Fleming	Fleming	Fleming
Lawrence	Leslie	Floyd	Floyd	Floyd
Lee	Letcher	Fulton	Fulton	Fulton
Leslie	Lincoln	Gallatin	Gallatin	Gallatin
Letcher	Madison	Grant	Grant	Grant
Magoffin	Magoffin	Grayson	Grayson	Grayson
Martin	Martin	Green	Green	Green
Mason	Mason	Greenup	Greenup	Greenup
McLean	McLean	Hancock	Hancock	Hart
Menifee	Menifee	Harrison	Hart	Henderson
Monroe	Monroe	Hart	Henderson	Hickman
Morgan	Morgan	Henderson	Hickman	Hopkins
Muhlenberg	Muhlenberg	Hickman	Hopkins	Jackson
Ohio	Ohio	Hopkins	Jackson	Jefferson
Owsley	Owsley	Jackson	Jefferson	Kenton
Perry	Perry	Jefferson	Kenton	Knott
Pike	Pike	Kenton	Knott	Knox
Scott	Scott	Knott	Knox	Laurel
Trigg	Trigg	Knox	Laurel	Lawrence
Union	Union	Laurel	Lawrence	Lee
Wayne	Wayne	Lawrence	Lee	Leslie
Webster	Webster	Lee	Leslie	Letcher
Whitley		Leslie	Letcher	Lincoln
Wolfe		Letcher	Lewis	Madison
		Lewis	Lincoln	Magoffin
		Lincoln	McCreary	Marshall
		McCreary	McLean	Martin
		McLean	Madison	Mason
		Madison	Magoffin	McCreary
		Magoffin	Marshall	McLean
		Marshall	Martin	Meade
		Martin	Mason	Menifee
		Mason	Meade	Monroe
		Meade	Menifee	Muhlenberg
		Menifee	Metcalfe	Nicholas
		Metcalfe	Monroe	Ohio
		Monroe	Morgan	Owsley
		Morgan	Muhlenberg	Perry
		Muhlenberg	Nicholas	Pike
		Nicholas	Ohio	Powell
		Ohio	Owsley	Pulaski
		Owen	Perry	Rockcastle
		Owsley	Pike	Rowan
		Perry	Powell	Scott
		Pike	Pulaski	Todd
		Powell	Robertson	Trigg
		Pulaski	Rockcastle	Trimble
		Robertson	Rowan	Union
		Rockcastle	Scott	Warren
		Rowan	Todd	Wayne
		Scott	Trigg	Webster
		Todd	Trimble	Wolfe
		Trigg	Union	
		Trimble	Warren	
		Union	Wayne	

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

KENTUCKY—Continued

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
		Warren Wayne Webster Whitley Wolfe	Webster Whitley Wolfe	

LOUISIANA[1]

Assumption Avoyelles Caddo Caldwell Catahoula Claiborne Concordia De Soto East Carroll Franklin Iberia Iberville Lafayette Lafourche La Salle Lincoln Madison Morehouse Natchitoches Ouachita Point Coupee Rapides Richland St. Landry St. Martin St. Mary Tensas Terrebonne Washington Webster West Carroll	Assumption Avoyelles Caddo Caldwell Catahoula Caliborne Concordia De Soto East Carroll Franklin Iberia Iberville Lafayette Lafourche La Salle Lincoln Madison Morehouse Natchitoches Ouachita Point Coupee Rapides Richland St. Landry St. Martin St. Mary Tensas Terrebonne Washington Webster West Carroll	Assumption Avoyelles Caddo Caldwell Catahoula Claiborne Concordia De Soto East Carroll Evangeline Franklin Iberia Iberville Lafayette Lafourche La Salle Lincoln Madison Morehouse Natchitoches Ouachita Point Coupee Rapides Richland St. Landry St. Martin St. Mary Tensas Terrebonne Washington Webster West Carroll	Assumption Avoyelles Caddo Caldwell Catahoula Claiborne Concordia De Soto East Carroll Franklin Iberia Iberville Lafayette Lafourche La Salle Lincoln Madison Morehouse Natchitoches Ouachita Point Coupee Rapides Richland St. Landry St. Martin St. Mary Tensas Terrebonne Washington Webster West Carroll	Assumption Avoyelles Caddo Caldwell Catahoula Claiborne Concordia De Soto East Carroll Franklin Iberia Iberville Lafayette Lafourche La Salle Lincoln Madison Morehouse Natchitoches Ouachita Point Coupee Rapides Richland St. Landry St. Martin St. Mary Tensas Terrebonne Washington Webster West Carroll

MAINE

Motbov Union[2] Rumford[2] Sanford[2] Vassalboro[2]	Motbov Union[2] Rumford[2] Sanford[2] Vassalboro[2]	Bar Harbor Bucksport Cooperative Health Union[4] Motbov Union[2] Rumford[2] Sanford[2]	Bar Harbor Cooperative Health Union[4] Motbov Union[2] Rumford[2] Sanford[2]	Bar Harbor Cooperative Health Union[5] Motbov Union[2] Rumford[2] Sanford[2]

[1] Parishes.
[2] Including municipalities of Orono, Milford, Bradley, Veazie, and Old Town.
[3] Town (township) wholly or partly rural.
[4] Including towns of Avon, Chesterville, Eustis, Livermore, Phillips, Rangeley, Strong, Temple, Weld, and Wilton.
[5] Including towns of Avon, Chesterville, Eustis, Livermore, Lang Pl., Rangeley, Sandy River Pl., Strong, Temple, and Weld.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

MARYLAND

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Allegany	Allegany	Allegany	Allegany	Allegany
Baltimore	Anne Arundel	Anne Arundel	Anne Arundel	Anne Arundel
Calvert	Baltimore	Baltimore	Baltimore	Baltimore
Carroll	Calvert	Calvert	Calvert	Calvert
Cecil	Carroll	Carroll	Carroll	Carroll
Frederick	Cecil	Cecil	Cecil	Cecil
Harford	Frederick	Dorchester	Charles	Charles
Montgomery	Harford	Frederick	Dorchester	Dorchester
Prince Georges	Kent	Garrett	Frederick	Frederick
Talbot	Montgomery	Harford	Garrett	Garrett
Wicomico	Prince Georges	Kent	Harford	Harford
	Talbot	Montgomery	Howard	Howard
	Washington	Prince Georges	Kent	Kent
	Wicomico	Queen Annes	Montgomery	Montgomery
		Talbot	Prince Georges	Prince Georges
		Washington	Queen Annes	Queen Annes
		Wicomico	Somerset	St. Marys
		Worcester	Talbot	Somerset
			Washington	Talbot
			Wicomico	Washington
			Worcester	Wicomico
				Worcester

MASSACHUSETTS

Barnstable	Barnstable	Barnstable	Barnstable	Barnstable
		Nashoba	Nashoba [1]	Nashoba [1]
		Southern Berkshire	Southern Berkshire [2]	Southern Berkshire [2]

MICHIGAN

Genesee	Alcona [3]	Alcona [3]	Alcona [3]	Alcona [3]
Oakland	Alpena [3]	Alpena [3]	Allegan	Allegan
Saginaw	Antrim [3]	Antrim [3]	Alpena [3]	Alpena [3]
Wexford	Charlevoix [3]	Barry	Antrim [3]	Antrim [3]
	Cheboygan [3]	Charlevoix [3]	Barry	Barry
	Crawford [3]	Cheboygan [3]	Charlevoix [3]	Charlevoix [3]
	Emmet [3]	Crawford [3]	Cheboygan [3]	Cheboygan [3]
	Genesee	Emmet [3]	Crawford [3]	Crawford [3]
	Iosco [3]	Genesee	Emmet [3]	Eaton
	Isabella	Iosco [3]	Genesee	Emmet [3]
	Kalkaska [3]	Isabella	Iosco [3]	Genesee
	Kent	Kalkaska [3]	Isabella	Iosco [3]
	Midland	Kent	Kalkaska [3]	Isabella
	Missaukee [3]	Midland	Kent	Kalkaska [3]
	Montmorency [3]	Missaukee [3]	Lake [4]	Kent
	Oakland	Montmorency [3]	Midland	Lake [4]
	Ogemaw [3]	Oakland	Missaukee [3]	Midland
	Oscoda [3]	Ogemaw [3]	Montmorency [3]	Missaukee [3]
	Otsego [3]	Oscoda [3]	Newaygo [4]	Montmorency [3]
	Ottawa	Otsego [3]	Oakland	Newaygo [4]
	Presque Isle [3]	Ottawa	Oceana [4]	Oakland
	Roscommon [3]	Presque Isle [3]	Ogemaw [3]	Oceana [4]
	Saginaw	Roscommon [3]	Oscoda [3]	Ogemaw [3]
	Wexford	Saginaw	Otsego [3]	Oscoda [3]
		Wexford	Ottawa	Otsego [3]
			Presque Isle [3]	Ottawa
			Roscommon [3]	Presque Isle [3]
			Saginaw	Roscommon [3]
			Wexford	Saginaw
				Wexford

MINNESOTA

St. Louis	St. Louis	St. Louis	St. Louis	St. Louis

[1] Represents 14 towns.
[2] Represents 16 towns.
[3] Included in 4 districts of 4 counties each.
[4] Included in 1 district of 3 counties.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

MISSISSIPPI

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Adams	Adams	Adams	Adams	Adams
Bolivar	Bolivar	Bolivar	Bolivar	Bolivar
Clarke	Clarke	Clarke	Coahoma	Coahoma
Coahoma	Coahoma	Coahoma	Copiah	Forrest
Copiah	Copiah	Copiah	Forrest	Hancock
Forrest	Forrest	Forrest	Hancock	Harrison
Hancock	Hancock	Hancock	Harrison	Hinds
Harrison	Harrison	Harrison	Hinds	Holmes
Hinds	Hinds	Hinds	Holmes	Humphreys
Holmes	Holmes	Holmes	Humphreys	Jackson
Humphreys	Humphreys	Humphreys	Jackson	Lamar
Issaquena	Issaquena	Issaquena	Lamar	Lauderdale
Jackson	Jackson	Jackson	Lauderdale	Lee
Lamar	Lamar	Lamar	Lee	Leflore
Lauderdale	Lauderdale	Lauderdale	Leflore	Lincoln
Lee	Lee	Lee	Lincoln	Monroe
Leflore	Leflore	Leflore	Monroe	Pearl River
Lincoln	Lincoln	Lincoln	Pearl River	Pike
Monroe	Monroe	Monroe	Perry	Sharkey
Pearl River	Pearl River	Pearl River	Pike	Sunflower
Perry	Perry	Perry	Sunflower	Union
Sharkey	Sharkey	Pike	Union	Warren
Sunflower	Sunflower	Sharkey	Warren	Washington
Tishomingo	Tishomingo	Sunflower	Washington	Yazoo
Union	Union	Tishomingo	Yazoo	
Warren	Warren	Union		
Washington	Washington	Warren		
Yazoo	Yazoo	Washington		
		Yazoo		

MISSOURI

Boone	Boone	Boone	Boone	Buchanan
Buchanan	Buchanan	Buchanan	Buchanan	Dunklin
Dunklin	Dunklin	Dunklin	Dunklin	Greene
Greene	Greene	Greene	Greene	Jackson
Jackson	Jackson	Jackson	Jackson	Marion
Marion	Marion	Marion	Marion	Miller
Mississippi	Miller	Miller	Miller	New Madrid
New Madrid	New Madrid	New Madrid	New Madrid	Pemiscot
Nodaway	Nodaway	Pemiscot	Pemiscot	St. Louis
Pemiscot	Pemiscot	St. Louis	St. Louis	
St. Francois	St. Francois	Scott		
St. Louis	St. Louis			
Scott	Scott			

MONTANA

Cascade	Cascade	Cascade	Cascade	Cascade
Gallatin	Gallatin	Gallatin	Gallatin	Gallatin
Lewis and Clark	Lewis and Clark	Lewis and Clark	Lewis and Clark	Lewis and Clark
Missoula	Missoula	Missoula	Missoula	Missoula

NEW MEXICO

Bernalillo	Bernalillo	Bernalillo	Bernalillo	Bernalillo
Chaves	Dona Ana	Dona Ana	Dona Ana	Dona Ana
Dona Ana	Eddy	Eddy	Eddy	Eddy
Eddy	Lea	Santa Fe	Santa Fe	Santa Fe
McKinley	McKinley	Union	Union	Union
Union	Santa Fe	Valencia	Valencia	Valencia
Valencia	Union			
	Valencia			

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

NEW YORK

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Cattaraugus	Cattaraugus	Cattaraugus	Cattaraugus	Cattaraugus
Cortland	Cortland	Cortland	Cortland	Columbia
Suffolk	Suffolk	Suffolk	Suffolk	Cortland
Westchester	Westchester	Westchester	Westchester	Suffolk
				Westchester

NORTH CAROLINA

Beaufort	Beaufort	Beaufort	Beaufort	Beaufort
Bertie	Bertie	Bladen	Bladen	Bladen
Bladen	Bladen	Buncombe	Buncombe	Buncombe
Buncombe	Buncombe	Cabarrus	Cabarrus	Cabarrus
Cabarrus	Cabarrus	Columbus	Columbus	Columbus
Cherokee	Cherokee	Cumberland	Cumberland	Cumberland
Columbus	Columbus	Davidson	Davidson	Davidson
Craven	Craven	Durham	Durham	Durham
Cumberland	Cumberland	Edgecombe	Edgecombe	Edgecombe
Davidson	Davidson	Forsyth	Forsyth [1]	Forsyth [1]
Durham	Durham	Franklin	Franklin	Franklin
Edgecombe	Edgecombe	Gaston	Gaston	Gaston
Forsyth	Forsyth	Granville	Granville	Granville
Gaston	Franklin	Guilford	Guilford	Guilford
Granville	Gaston	Halifax	Halifax	Halifax
Guilford	Guilford	Johnston	Lenoir	Hyde
Halifax	Granville	Lenoir	Mecklenburg	Lenoir
Henderson	Halifax	Mecklenburg	Moore	Mecklenburg
Johnston	Henderson	Moore	New Hanover	Moore
Lenoir	Johnston	New Hanover	Northampton	Nash
Mecklenburg	Lenoir	Northampton	Pitt	New Hanover
Moore	Mecklenburg	Pitt	Randolph	Northampton
Nash	Moore	Randolph	Richmond	Pitt
New Hanover	Nash	Richmond	Robeson	Randolph
Northampton	New Hanover	Robeson	Rowan	Richmond
Pitt	Northampton	Rowan	Rutherford	Robeson
Randolph	Pitt	Rutherford	Sampson	Rowan
Richmond	Randolph	Sampson	Stokes [1]	Sampson
Robeson	Richmond	Stokes	Surry	Stokes [1]
Rowan	Robeson	Surry	Vance	Surry
Rutherford	Rowan	Vance	Wake	Vance
Sampson	Rutherford	Wake	Wayne	Wake
Surry	Sampson	Wayne	Wilkes	Wayne
Vance	Surry	Wilkes	Wilson	Wilkes
Wake	Vance	Wilson	Yadkin	Wilson
Wayne	Wake	Yadkin		Yadkin
Wilkes	Wayne			
Wilson	Wilkes			
	Wilson			

OHIO

Allen	Allen	Allen	Allen	Allen
Ashtabula	Ashtabula	Ashtabula	Ashtabula	Belmont
Belmont	Belmont	Belmont	Belmont	Butler
Butler	Butler	Butler	Butler	Clinton
Clinton	Clinton	Clinton	Clinton	Coshocton
Columbiana	Columbiana	Columbiana	Columbiana	Crawford
Coshocton	Coshocton	Coshocton	Coshocton	Cuyahoga
Crawford	Crawford	Crawford	Crawford	Darke
Cuyahoga	Cuyahoga	Cuyahoga	Cuyahoga	Delaware
Darke	Darke	Darke	Darke	Erie
Delaware	Delaware	Delaware	Delaware	Fayette
Erie	Erie	Erie	Erie	Hamilton
Fayette	Fayette	Fayette	Fayette	Hancock
Franklin	Franklin	Franklin	Franklin	Hocking
Geauga	Hamilton	Guernsey	Hamilton	Huron
Hamilton	Hancock	Hamilton	Hancock	Jefferson
Hancock	Hocking	Hancock	Hocking	Lorain
Hocking	Huron	Hocking	Huron	Lucas
Huron	Jackson	Huron	Jackson	Mahoning
Jefferson	Jefferson	Jackson	Jefferson	Marion
Lake	Lorain	Jefferson	Lorain	Medina
Lorain	Lucas	Lorain	Lucas	Meigs

[1] Included in 1 district of 3 counties.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

OHIO—Contfnued

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Lucas	Mahoning	Lucas	Mahoning	Mercer
Mahoning	Marion	Mahoning	Marion	Miami
Marion	Meigs	Marion	Medina	Montgomery
Meigs	Mercer	Medina	Meigs	Perry
Mercer	Miami	Meigs	Mercer	Pickaway
Miami	Montgomery	Mercer	Miami	Preble
Montgomery	Morrow	Miami	Montgomery	Richland
Morrow	Muskingum	Montgomery	Morrow	Ross
Perry	Perry	Morrow	Perry	Scioto
Pickaway	Pickaway	Perry	Pickaway	Seneca
Preble	Preble	Pickaway	Preble	Shelby
Richland	Richland	Preble	Richland	Stark
Ross	Ross	Richland	Ross	Summit
Sandusky	Sandusky	Ross	Scioto	Trumbull
Scioto	Scioto	Scioto	Seneca	Tuscarawas
Seneca	Seneca	Seneca	Shelby	Washington
Shelby	Shelby	Shelby	Stark	Wayne
Stark	Stark	Stark	Summit	Wood
Summit	Summit	Summit	Trumbull	
Trumbull	Trumbull	Trumbull	Tuscarawas	
Tuscarawas	Tuscarawas	Tuscarawas	Washington	
Washington	Washington	Washington	Wayne	
Wayne	Wayne	Wayne	Wood	
Wood	Wood	Wood		

OKLAHOMA

Carter	Carter	Carter		
Le Flore	Le Flore	Le Flore		
McCurtain	McCurtain	McCurtain		
Muskogee	Muskogee	Muskogee		
Okmulgee	Okmulgee	Okmulgee		
Osage	Ottawa	Ottawa		
Ottawa	Pittsburg	Pittsburg		
Pittsburg	Pottawatomie	Pottawatomie		
Seminole	Seminole	Seminole		

OREGON

Clackamas	Clackamas	Clackamas	Clackamas	Clackamas
Coos	Coos	Coos	Coos	Jackson
Douglas	Douglas	Douglas	Douglas	Klamath
Jackson	Jackson	Jackson	Jackson	Lane
Klamath	Klamath	Klamath	Klamath	Marion
Marion	Lane	Lane	Lane	Multnomah
Multnomah	Marion	Marion	Marion	
	Multnomah	Multnomah		

PENNSYLVANIA

	Allegheny	Allegheny	Allegheny	Allegheny
	Bucks	Bucks	Bucks	Bucks
	Luzerne	Luzerne	Luzerne	Luzerne

SOUTH CAROLINA

Aiken	Aiken	Aiken	Aiken	Aiken
Anderson	Anderson	Anderson	Anderson	Anderson
Beaufort	Beaufort	Beaufort	Beaufort	Beaufort
Berkeley	Berkeley	Berkeley	Berkeley	Berkeley
Charleston	Charleston	Charleston	Charleston	Charleston
Cherokee	Cherokee	Cherokee	Cherokee	Cherokee
Darlington	Darlington	Darlington	Darlington	Darlington
Dillon	Dillon	Dillon	Dillon	Dillon [1]
Dorchester	Dorchester	Dorchester	Dorchester	Dorchester
Fairfield	Fairfield	Fairfield	Fairfield	Fairfield
Florence	Florence	Florence	Florence	Florence

[1] Included in 1 district of 2 counties.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

SOUTH CAROLINA—Continued

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Georgetown	Georgetown	Georgetown	Georgetown	Georgetown
Greenville	Greenville	Greenville	Greenville	Greenville
Greenwood	Greenwood	Greenwood	Greenwood	Greenwood
Horry	Horry	Horry	Horry	Horry
Kershaw	Kershaw	Kershaw	Kershaw	Kershaw
Lexington	Lexington	Lexington	Lexington	Marion [1]
Marion	Marion	Marion	Marion	Newberry
Newberry	Newberry	Newberry	Newberry	Oconee
Oconee	Oconee	Oconee	Oconee	Orangeburg
Orangeburg	Orangeburg	Orangeburg	Orangeburg	Pickens
Richland	Richland	Pickens	Pickens	Richland
Spartanburg	Spartanburg	Richland	Richland	Spartanburg
		Spartanburg	Spartanburg	
SOUTH DAKOTA				
Pennington	Pennington	Pennington	Pennington	Pennington
TENNESSEE				
Bledsoe	Bledsoe	Bledsoe [2]	Bledsoe [2]	Bledsoe
Blount	Blount	Blount	Bradley	Bradley
Bradley	Bradley	Bradley	Carter	Davidson
Carter	Carter	Carter	Clay [3]	Dyer
Clay	Clay	Clay [3]	Davidson [3]	Fentress [4]
Davidson	Davidson	Cumberland	Dyer	Gibson
Dyer	Dyer	Davidson [3]	Fentress [3]	Giles
Fentress	Fentress	Dyer	Gibson	Greene
Gibson	Gibson	Fentress [3]	Giles	Grundy [4]
Giles	Giles	Gibson	Greene	Hamilton
Greene	Greene	Giles	Grundy [3]	Hardeman
Grundy	Grundy	Greene	Hamilton	Humphreys
Hamilton	Hamilton	Grundy [3]	Hardeman	Jackson [4]
Hardeman	Hardeman	Hamilton	Humphreys	Knox
Jackson	Humphreys	Hardeman	Jackson [3]	Lake
Knox	Jackson	Humphreys	Knox	Lauderdale
Lake	Knox	Jackson [3]	Lake	Lincoln
Lauderdale	Lake	Knox	Lauderdale	Maury
Lincoln	Lauderdale	Lake	Lewis	Meigs [4]
Meigs	Lewis	Lauderdale	Lincoln	Montgomery
Monroe	Lincoln	Lewis	Maury	Obion
Montgomery	Maury	Lincoln	Meigs [3]	Rhea [4]
Obion	Meigs	Maury	Monroe	Roane
Overton	Monroe	Meigs [3]	Montgomery	Rutherford
Pickett	Montgomery	Monroe	Obion	Sequatchie [4]
Rhea	Obion	Montgomery	Overton [3]	Sevier
Roane	Overton	Obion	Pickett [3]	Shelby
Rutherford	Pickett	Overton [3]	Rhea [3]	Sullivan
Sequatchie	Rhea	Pickett [3]	Roane	Sumner
Sevier	Roane	Rhea [3]	Rutherford	Tipton
Shelby	Rutherford	Roane	Sequatchie [3]	Washington
Sullivan	Sequatchie	Rutherford	Sevier	Weakley
Sumner	Sevier	Sequatchie [3]	Shelby	Williamson
Tipton	Shelby	Sevier	Sullivan	Wilson
Washington	Sullivan	Shelby	Sumner	
Weakley	Sumner	Sullivan	Tipton	
Williamson	Tipton	Sumner	Unicoi	
Wilson	Unicoi	Tipton	Washington	
	Washington	Unicoi	Weakley	
	Weakley	Washington	Williamson	
	Williamson	Weakley	Wilson	
	Wilson	Williamson		
		Wilson		
TEXAS				
Cameron	Cameron	Cameron [5]	Cameron	Dallas
Hidalgo	Hidalgo	Cass	Gregg	El Paso
Jefferson	Jefferson	Hidalgo [5]	Hidalgo	Gregg
McLennan	McLennan	Jefferson	McLennan	Hidalgo
Nolan	Nolan	McLennan	Nolan	McLennan
Tarrant	Potter	Nolan	Potter	Nolan
	Tarrant	Potter	Starr	Potter
		Starr [5]	Tarrant	Tarrant
		Willacy [1]		

[1] Included in 1 district of 2 counties.
[2] Included in 1 district of 3 counties.
[3] Included in 4 districts of 2 counties each.
[4] Included in 3 districts of 2 counties each.
[5] Included in 1 district of 4 counties.

TABLE 1.—*List of counties, townships, or districts in which as of Jan. 1, 1930, 1931, and 1932, respectively, and Dec. 31, 1932 and 1933, respectively, rural sections were provided with health service under local whole-time health officers*—Continued

UTAH

Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933
Box Elder Davis Utah	Davis Utah	Davis Utah	Davis Utah	Davis Utah

VIRGINIA

Accomac Albemarle Arlington Augusta Brunswick Fairfax Greensville Halifax Henrico Isle of Wight Nansemond Norfolk Northampton Princess Anne Rockbridge Southampton Wise	Accomac Albemarle Amelia [1] Appomattox [1] Arlington Augusta Brunswick Buckingham [1] Charlotte [1] Cumberland [1] Fairfax Greensville Halifax Henrico Isle of Wight Lunenburg [1] Nansemond Norfolk Northampton Nottoway [1] Powhatan [1] Prince Edward [1] Princess Anne Rockbridge Southampton Wise	Accomac [2] Albemarle Amelia [1] Appomattox [1] Arlington Augusta Brunswick [2] Buckingham [1] Charlotte [1] Cumberland [1] Fairfax Greensville [2] Halifax Henrico Isle of Wight [2] Lunenburg [1] Nansemond [2] Norfolk [2] Northampton [2] Nottoway [1] Pittsylvania Powhatan [1] Prince Edward [1] Princess Anne [2] Rockbridge Southampton Wise	Accomac [2] Albemarle Amelia [1] Appomattox [1] Arlington Augusta Brunswick [2] Buckingham [1] Charlotte [1] Cumberland [1] Fairfax Greensville [2] Halifax Henrico Isle of Wight [2] Lunenburg [1] Nansemond [2] Norfolk [2] Nottoway [1] Pittsylvania Powhattan [1] Prince Edward [1] Princess Anne [2] Rockbridge Southampton	Albemarle Arlington Augusta Brunswick [2] Fairfax Greensville [2] Halifax Henrico Isle of Wight [2] Nansemond [2] Norfolk [2] Pittsylvania Prince Edward Princess Anne [2] Rockbridge Southampton

WASHINGTON

Chelan Clark King Snohomish Spokane Walla Walla Whitman Yakima	Chelan Clark King Snohomish Spokane Walla Walla Whitman Yakima	Chelan Clark King Snohomish Spokane Walla Walla Whitman Yakima	Chelan Clark King Snohomish Spokane Walla Walla Whitman Yakima	Chelan Clark King Snohomish Spokane Walla Walla Whitman Yakima

WEST VIRGINIA

Berkeley Boone Brooke Fayette Gilmer Hancock Harrison Kanawha Logan Marion Monongalia Ohio Preston Raleigh Wood	Berkeley Boone Brooke Fayette Gilmer Hancock Harrison Kanawha Logan Marion Marshall Monongalia Ohio Preston Raleigh Wood	Berkeley Boone Brooke Doddridge [4] Fayette Hancock Harrison Kanawha Logan Marion Marshall Monongalia Ohio Pleasants [4] Preston Raleigh Ritchie [4] Tyler [4] Wetzel [4] Wood	Berkeley Boone Brooke Fayette Hancock Harrison Kanawha Logan Marion Marshall Monongalia Ohio Preston Raleigh Wood	Berkeley Boone Fayette Hancock Harrison Kanawha Logan Marshall Monongalia Ohio Preston Raleigh Wood

[1] Included in 1 district of 9 counties.
[2] Included in 4 districts of 2 counties each.
[3] Included in 3 districts of 2 counties each.
[4] Included in 1 district of 5 counties.

Résumé of table 1

State	Number of counties					Increase or decrease in—			
	Jan. 1, 1930	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933	1930	1931	1932	1933
Alabama	51	54	54	54	46	+3			−8
Arizona	3	6	5	4	4	+3	−1	−1	
Arkansas	21	24	30	27	21	+3	+6	−3	−6
California	12	13	14	14	13	+1	+1		−1
Colorado	1	1	1					−1	
Connecticut	1	1	1	2	2			+1	
Delaware	3	3	3	3	3				
Florida	2	3	2	3	2	+1	−1	+1	−1
Georgia	34	30	35	31	30	−4	+5	−4	−1
Idaho	2	1	1	1		−1			−1
Illinois	2	2	1	1	1		−1		
Iowa		2	3	3	1	+2	+1		−2
Kansas	11	12	10	6	4	+1	−2	−4	−2
Kentucky	45	43	81	79	73	−2	+38	−2	−6
Louisiana	31	31	32	31	31		+1	−1	
Maine	4	4	6	5	5		+2	−1	
Maryland	11	14	18	21	22	+3	+4	+3	+1
Massachusetts	1	1	3	3	3		+2		
Michigan	4	24	25	29	30	+20	+1	+4	+1
Minnesota	1	1	1	1	1				
Mississippi	26	26	29	25	24		+1	−4	−1
Missouri	13	13	11	10	9		−2	−1	−1
Montana	4	4	4	4	4				
New Mexico	7	8	6	6	6	+1	−2		
New York	4	4	4	4	5				+1
North Carolina	38	39	36	35	36	+1	−3	−1	+1
Ohio	46	46	46	45	40			−1	−5
Oklahoma	9	9	9					−9	
Oregon	7	8	8	7	6	+1		−1	−1
Pennsylvania		3	3	3	3	+3			
South Carolina	23	23	24	24	23		+1		−1
South Dakota	1	1	1	1	1				
Tennessee	38	42	43	41	34	+4	+1	−2	−7
Texas	6	7	9	8	8	+1	+2	−1	
Utah	3	2	2	2	2	−1			
Virginia	17	26	27	25	16	+9	+1	−2	−9
Washington	8	8	8	8	8				
West Virginia	15	16	20	15	13	+1	+4	−5	−2
Total	507	557	616	581	530	+50	+59	−35	−51

The accompanying map shows the location of the counties, townships, or districts in the United States with health service for rural areas, under the direction of local whole-time health officers on December 31, 1933.

Within the period January 1, 1933, to December 31, 1933, whole-time health service was established in 4 units and was discontinued in 55—a net loss of 51 units. The greatest loss was in the State of Virginia, where whole-time health service was discontinued in 9 counties.

Delaware leads in the percentage of rural population under whole-time health service, all of its three counties having been provided with local whole-time health organization by the State. Of the States in which the local governmental units maintain the health organizations, with or without assistance from the State health department or other sources, Maryland, with 97.5, had the highest percentage of rural population under whole-time health service.

Table 2 presents, by States, the percentage of rural population having health service under the direction of local whole-time health officers at the end of the calendar year 1933.

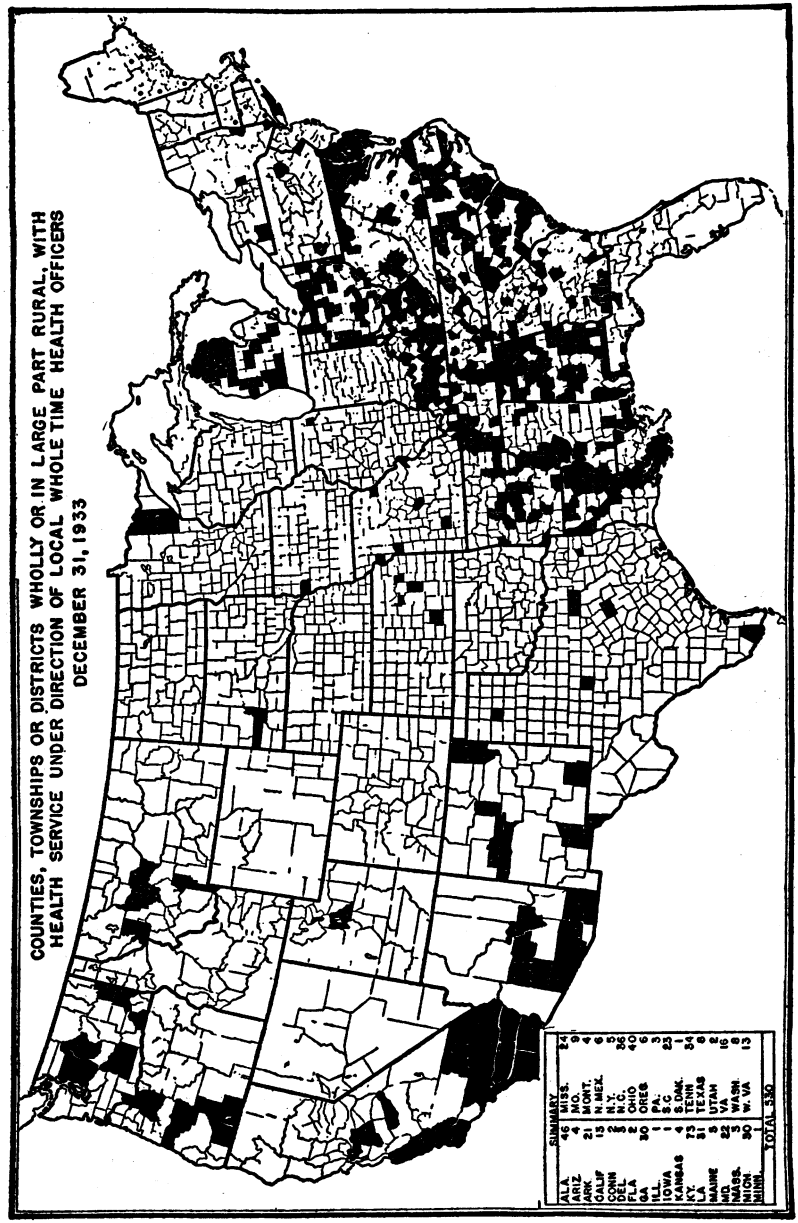


FIGURE 1.—Rural areas having whole-time health officers, December 31, 1933.

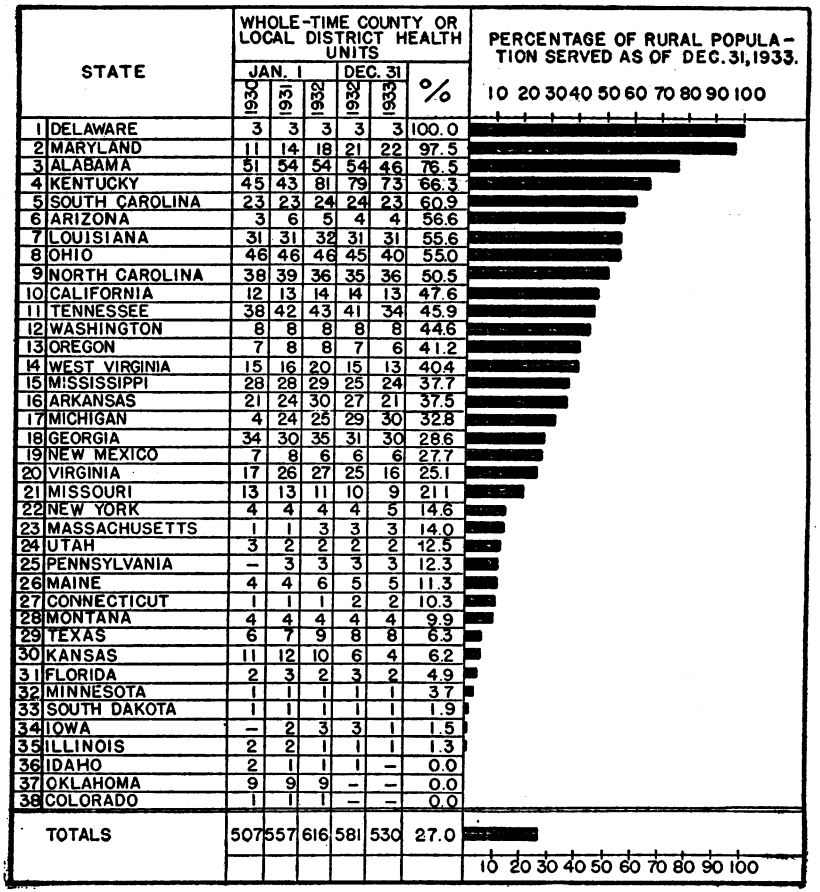
TABLE 2.—*Percentage of rural population having on Dec. 31, 1933, health service under local, whole-time health officers*

State	Rural population as of Dec. 31, 1933 (estimated from 1930 census)	Rural population with local health service under direction of whole-time health officers	Percentage of rural population with local health service under direction of whole-time health officers
Alabama	1,925,066	1,473,028	76.5
Arizona	310,989	176,081	56.6
Arkansas	1,475,224	553,512	37.5
California	1,670,865	795,601	47.6
Colorado	526,715	0	0
Connecticut	486,415	50,146	10.3
Delaware	119,989	119,989	100.0
Florida	743,476	36,261	4.9
Georgia	[1] 2,013,016	574,918	28.6
Idaho	316,511	0	0
Illinois	[1] 1,994,927	26,408	1.3
Indiana	[1] 1,442,611	0	0
Iowa	[1] 1,491,647	23,050	1.5
Kansas	[1] 1,151,165	71,533	6.2
Kentucky	1,827,445	1,212,495	66.3
Louisiana	1,303,809	725,358	55.6
Maine	478,651	53,949	11.3
Maryland	684,613	667,690	97.5
Massachusetts	497,238	69,522	14.0
Michigan	1,581,735	519,383	32.8
Minnesota	[1] 1,306,337	48,313	3.7
Mississippi	1,715,045	646,829	37.7
Missouri	[1] 1,770,248	373,393	21.1
Montana	[1] 356,570	35,139	9.9
Nebraska	892,145	0	0
Nevada	[1] 56,594	0	0
New Hampshire	202,784	0	0
New Jersey	709,819	0	0
New Mexico	324,224	89,783	27.7
New York	2,165,158	316,415	14.6
North Carolina	2,467,136	1,245,110	50.5
North Dakota	570,798	0	0
Ohio	2,160,204	1,188,519	55.0
Oklahoma	1,605,658	0	0
Oregon	490,259	201,907	41.2
Pennsylvania	[1] 3,097,139	379,607	12.3
Rhode Island	65,550	0	0
South Carolina	[1] 1,367,685	833,214	60.9
South Dakota	571,918	10,674	1.9
Tennessee	[1] 1,720,018	789,383	45.9
Texas	3,539,568	223,925	6.3
Utah	244,425	30,516	12.5
Vermont	[1] 240,845	0	0
Virginia	1,636,721	410,719	25.1
Washington	704,821	314,474	44.6
West Virginia	1,290,019	521,463	40.4
Wisconsin	[1] 1,385,163	0	0
Wyoming	162,205	0	0
Total	54,861,163	14,808,307	27.0

[1] 1930 census; no estimate made for Dec. 31, 1933.

Of the 530 counties, townships, or districts with health service under local whole-time health officers at the end of the present calendar year, 491, or 92.6 percent, were receiving financial assistance for the support of their health service from one or more of the following agencies: The State board of health, the United States Public Health Service, the Rockefeller Foundation, the American Red Cross, the American Women's Hospital Fund, the Rosenwald Fund, the Commonwealth Fund, and the Milbank Memorial Fund.

The accompanying chart shows, by States, the number of counties, townships, or districts with health service under the direction of local whole-time health officers on January 1, 1930, 1931, and 1932, and on December 31, 1932 and 1933, respectively, and the percentage of the rural population of each State receiving such service at the close of the calendar year 1933. Also, it shows the total number of



	STATE	WHOLE-TIME COUNTY OR LOCAL DISTRICT HEALTH UNITS					PERCENTAGE OF RURAL POPULATION SERVED AS OF DEC. 31, 1933.
		JAN. 1			DEC. 31		
		1930	1931	1932	1932	1933	%
1	DELAWARE	3	3	3	3	3	100.0
2	MARYLAND	11	14	18	21	22	97.5
3	ALABAMA	51	54	54	54	46	76.5
4	KENTUCKY	45	43	81	79	73	66.3
5	SOUTH CAROLINA	23	23	24	24	23	60.9
6	ARIZONA	3	6	5	4	4	56.6
7	LOUISIANA	31	31	32	31	31	55.6
8	OHIO	46	46	46	45	40	55.0
9	NORTH CAROLINA	38	39	36	35	36	50.5
10	CALIFORNIA	12	13	14	14	13	47.6
11	TENNESSEE	38	42	43	41	34	45.9
12	WASHINGTON	8	8	8	8	8	44.6
13	OREGON	7	8	8	7	6	41.2
14	WEST VIRGINIA	15	16	20	15	13	40.4
15	MISSISSIPPI	28	28	29	25	24	37.7
16	ARKANSAS	21	24	30	27	21	37.5
17	MICHIGAN	4	24	25	29	30	32.8
18	GEORGIA	34	30	35	31	30	28.6
19	NEW MEXICO	7	8	6	6	6	27.7
20	VIRGINIA	17	26	27	25	16	25.1
21	MISSOURI	13	13	11	10	9	21.1
22	NEW YORK	4	4	4	4	5	14.6
23	MASSACHUSETTS	1	1	3	3	3	14.0
24	UTAH	3	2	2	2	2	12.5
25	PENNSYLVANIA	–	3	3	3	3	12.3
26	MAINE	4	4	6	5	5	11.3
27	CONNECTICUT	1	1	1	2	2	10.3
28	MONTANA	4	4	4	4	4	9.9
29	TEXAS	6	7	9	8	8	6.3
30	KANSAS	11	12	10	6	4	6.2
31	FLORIDA	2	3	2	3	2	4.9
32	MINNESOTA	1	1	1	1	1	3.7
33	SOUTH DAKOTA	1	1	1	1	1	1.9
34	IOWA	–	2	3	3	1	1.5
35	ILLINOIS	2	2	1	1	1	1.3
36	IDAHO	2	1	1	1	–	0.0
37	OKLAHOMA	9	9	9	–	–	0.0
38	COLORADO	1	1	1	–	–	0.0
	TOTALS	507	557	616	581	530	27.0

FIGURE 2.—Number of whole-time county or local district health units, by States, 1930–33, and percentage of rural population served on December 31, 1933.

counties, townships, or districts in the United States having local whole-time health service, together with the percentage of the rural population of the entire United States served by local whole-time health organizations.

It will be noted that 73 percent of our rural population is as yet not provided with the form of health organization which is considered best adapted to rural areas.

COURT DECISION ON PUBLIC HEALTH

Nuisance caused by village polluting creek in disposing of sewage enjoined.—(Illinois Supreme Court; *Barrington Hills Country Club et al.* v. *Village of Barrington*, 191 N. E. 239; decided June 15, 1934.) An injunction was sought by certain riparian owners against the village of Barrington to prevent the latter from discharging sewage and the effluent from its sewage-treatment plant into a creek above their premises. A decree in favor of the complainants was rendered by the trial court, which decree was affirmed by the supreme court. In the course of the latter court's opinion, it was said:

The law in Illinois is, and has long been, settled upon the controlling questions involved in this case. A private nuisance may be enjoined by a suit in equity, or the party suffering damage and injury may proceed at law, and the remedies are concurrent and not exclusive. [Cases cited.] While it is contended here that those cases must have involved raw sewage as distinguished from the efflux from a sewage-treatment plant of modern design, sewage shown by this record to contain human feces, debris, * * * and other filth, remains sewage. The defendants in error, as riparian owners on a stream thus polluted, whether it be polluted once, twice, three times or more a season, or for 3 or 4 percent of all the days of each year, have a right to protection against such invasion of their property rights, and if the effluent is considered to be as pure as contended by the plaintiff in error, the defendants in error still have the other property right, which must be protected, to have the stream carry only such a volume of water as would be naturally collected by the drainage of the basin in which it flows. This court has repeatedly held that the taking of property by a municipality or other body vested with the power of eminent domain will not be tolerated except in the manner prescribed by statute, and the taking must be accompanied by payment at the time the property or right is taken. [Cases cited.]

In rejecting the village's contention that a permit issued by the State sanitary water board, under a 1929 statute, was a complete bar to the suit brought against it, the supreme court stated, in part, as follows:

* * * The act only empowers the sanitary water board to control, prevent, and abate pollution of streams where the condition is detrimental to "the public health, or to the health of animals, fish, or aquatic life, or detrimental to the practicable use of the waters for recreational purposes." Section 2 (Smith-Hurd Rev. St. 1933, c. 19, sec. 130). This act does not extend the authority of the sanitary water board to include control of private property rights of riparian owners and does not authorize any encroachment upon such rights. The powers created are to be exercised only on behalf of the public and affect its rights alone. * * * In this suit only private property rights of riparian owners are involved. The nuisance sought to be enjoined is one of a private rather than a public nature. While the permit might bar an action brought by the attorney general, it constitutes no bar to this suit. * * *

DEATHS DURING WEEK ENDED NOV. 17, 1934

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Nov. 17, 1934	Corresponding week, 1933
Data from 86 large cities of the United States:		
Total deaths	7,836	8,196
Deaths per 1,000 population, annual basis	10.9	11.4
Deaths under 1 year of age	571	600
Deaths under 1 year of age per 1,000 estimated live births	53	[1] 52
Deaths per 1,000 population, annual basis, first 46 weeks of year	11.3	10.8
Data from industrial insurance companies:		
Policies in force	67,041,531	67,464,735
Number of death claims	11,357	13,233
Death claims per 1,000 policies in force, annual rate	8.8	10.3
Death claims per 1,000 policies, first 46 weeks of year, annual rate	9.8	9.7

[1] Data for 81 cities.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended Nov. 24, 1934, and Nov. 25, 1933

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Nov. 24, 1934, and Nov. 25, 1933

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933
New England States:								
Maine	1	3	-------	1	13	2	0	0
New Hampshire	-------	2	-------	-------	5	75	0	0
Vermont	4	4	-------	-------	2	58	0	0
Massachusetts	17	28	-------	-------	83	387	0	2
Rhode Island	2	-------	-------	1	-------	-------	0	0
Connecticut	1	14	1	17	222	13	0	0
Middle Atlantic States:								
New York	45	47	[1]41	[1]17	1,078	370	5	5
New Jersey	32	24	26	23	49	30	1	0
Pennsylvania	56	73	-------	-------	632	231	2	4
East North Central States:								
Ohio	97	97	6	3	101	58	1	0
Indiana	53	108	43	34	149	28	1	1
Illinois [2]	76	41	16	30	333	23	5	5
Michigan	12	34	3	2	47	19	1	2
Wisconsin	9	4	3	17	212	56	0	3
West North Central States:								
Minnesota	4	16	1	-------	220	23	0	0
Iowa [3]	4	12	-------	-------	277	3	0	1
Missouri	60	90	41	8	71	42	4	3
North Dakota	10	10	-------	1	29	8	0	0
South Dakota	4	1	-------	-------	24	202	0	1
Nebraska	14	7	-------	8	7	17	0	0
Kansas	15	27	-------	-------	83	3	1	1
South Atlantic States:								
Delaware	-------	1	1	-------	-------	2	0	0
Maryland [3]	14	22	8	11	35	2	0	1
District of Columbia	14	22	-------	-------	1	9	0	0
Virginia [4]	104	124	-------	-------	140	24	2	0
West Virginia	60	80	33	52	161	16	3	1
North Carolina [3]	74	108	10	26	107	271	0	1
South Carolina [4]	10	24	267	393	3	56	0	0
Georgia [4 5]	52	69	-------	-------	-------	243	0	2
Florida [4]	25	14	-------	2	10	1	0	0
East South Central States:								
Kentucky	79	96	32	-------	332	4	0	1
Tennessee	62	68	68	63	22	220	0	1
Alabama [4]	37	102	51	37	57	14	1	1
Mississippi [3]	26	28	-------	-------	-------	-------	1	1

See footnoues at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Nov. 24, 1934, and Nov. 25, 1933—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933
West South Central States:								
Arkansas	16	29	19	9	-------	232	0	0
Louisiana	30	49	5	9	8	9	0	1
Oklahoma [6]	16	89	27	25	6	50	0	1
Texas [4]	93	311	81	146	6	11	0	0
Mountain States:								
Montana	11	-------	3	11	53	2	0	0
Idaho	1	-------	3	-------	11	2	0	1
Wyoming	3	1	-------	-------	4	31	0	0
Colorado	9	7	-------	29	150	-------	0	0
New Mexico	5	10	4	6	45	30	0	0
Arizona	5	3	15	27	2	6	0	0
Utah [3]	-------	-------	-------	8	12	123	0	0
Pacific States:								
Washington	12	-------	-------	3	31	52	0	0
Oregon	-------	1	42	25	15	9	2	1
California	42	39	32	63	148	126	0	3
Total	1,316	1,939	882	1,107	4,996	3,193	30	44

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933
New England States:								
Maine	0	4	26	9	0	0	5	3
New Hampshire	0	0	6	17	0	0	0	0
Vermont	0	1	14	6	0	0	1	0
Massachusetts	0	1	182	223	0	0	1	0
Rhode Island	0	0	17	12	0	0	0	1
Connecticut	0	0	45	71	0	0	2	1
Middle Atlantic States:								
New York	1	6	399	361	0	0	16	12
New Jersey	0	0	131	125	0	0	9	5
Pennsylvania	0	8	408	464	0	0	14	27
East North Central States:								
Ohio	0	2	447	472	1	1	5	7
Indiana	1	0	179	172	1	4	1	3
Illinois [2]	3	1	590	426	1	0	24	18
Michigan	4	1	286	281	0	0	9	11
Wisconsin	0	3	433	97	15	24	.1	3
West North Central States:								
Minnesota	2	2	91	83	8	1	0	2
Iowa [3]	1	1	63	63	0	3	4	0
Missouri	0	0	112	200	2	3	20	4
North Dakota	0	0	43	52	1	0	3	0
South Dakota	0	0	21	2	23	0	0	0
Nebraska	0	1	34	28	0	11	0	0
Kansas	1	1	53	142	1	0	4	5
South Atlantic States:								
Delaware	0	0	11	6	0	0	0	1
Maryland [3]	2	1	115	93	0	0	3	14
District of Columbia	0	0	24	21	0	0	0	1
Virginia [4]	1	1	162	170	0	0	14	9
West Virginia	2	3	177	141	1	3	11	2
North Carolina [3]	0	3	123	191	0	0	2	7
South Carolina [4]	0	1	6	22	0	0	3	11
Georgia [4, 5]	0	5	23	17	0	0	2	9
Florida [4]	0	0	8	7	0	0	3	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Nov. 24, 1934, and Nov. 25, 1933—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933	Week ended Nov. 24, 1934	Week ended Nov. 25, 1933
East South Central States:								
Kentucky	1	3	84	113	0	0	24	11
Tennessee	1	0	103	139	0	7	15	17
Alabama [4]	2	2	43	55	1	0	13	20
Mississippi [3]	0	1	29	23	0	2	4	2
West South Central States:								
Arkansas	0	2	13	27	0	0	18	5
Louisiana	1	0	21	27	1	0	12	18
Oklahoma [6]	0	1	22	39	0	1	33	21
Texas [4]	3	3	64	100	0	15	35	28
Mountain States:								
Montana	0	2	18	17	0	0	1	2
Idaho	0	2	13	6	0	7	1	1
Wyoming	0	0	12	13	3	0	0	0
Colorado	0	0	208	28	2	1	3	3
New Mexico	0	1	25	25	1	0	29	13
Arizona	1	1	36	17	0	1	9	0
Utah [3]	0	0	39	8	0	0	0	1
Pacific States:								
Washington	7	2	60	44	24	3	3	13
Oregon	2	4	59	49	0	2	1	1
California	23	4	198	248	2	18	11	18
Total	59	74	5,276	4,952	88	107	369	330

[1] New York City only.
[2] Rocky Mountain spotted fever, week ended Nov. 24, 1934 2 cases, as follows: Illinois, 1; North Carolina, 1.
[3] Week ended earlier than Saturday.
[4] Typhus fever, week ended Nov. 24, 1934, 14 cases, as follows: Virginia, 1; South Carolina, 2; Georgia, 5; Florida, 1; Alabama, 3; Texas, 2.
[5] Dengue, week ended Nov. 24, 1934: Georgia, 23 cases
[6] Exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
October 1934										
Arizona	3	11	17	1	32	-------	17	130	0	22
Florida	1	57	1	320	8	2	0	17	0	5
Idaho	2	12	15	-------	31	-------	7	21	6	22
Illinois	18	298	34	26	333	-------	45	1,440	7	168
Kansas	-------	62	10	2	183	-------	11	249	4	25
Louisiana	5	119	18	219	31	10	2	61	2	78
Maryland	1	58	49	-------	41	-------	1	356	0	45
Missouri	8	315	168	112	229	1	4	313	0	141
Montana	-------	18	23	-------	200	-------	35	82	1	25
New Mexico	-------	16	15	56	106	1	0	72	0	70
Oklahoma [1]	8	58	104	114	3	1	2	43	2	68
Oregon	-------	9	91	1	27	-------	16	199	2	9
Pennsylvania	14	286	-------	7	1,201	5	26	1,285	0	120
Texas	5	198	385	2,323	84	32	32	128	5	133
Virginia	3	431	143	40	212	6	12	422	2	66

[1] Exclusive of Oklahoma City and Tulsa.

October 1934	Cases
Anthrax:	
Illinois	1
Chicken pox:	
Arizona	16
Florida	2
Illinois	567
Kansas	311
Louisiana	9
Maryland	97
Missouri	164
Montana	78
New Mexico	25
Oklahoma [1]	19
Oregon	48
Pennsylvania	1,304
Texas	42
Virginia	38
Conjunctivitis:	
Arizona	19
New Mexico	1
Dengue:	
Florida	390
Louisiana	1
Maryland	1
Texas	22
Diarrhea:	
Maryland	66
Dysentery:	
Arizona	19
Florida	2
Idaho (amoebic)	1
Illinois (amoebic)	28
Illinois (bacillary)	29
Illinois (amoebic carriers)	110
Kansas (amoebic)	4
Louisiana	12
Maryland	32
Missouri	68
Montana (amoebic)	1
Montana	2
New Mexico (bacillary)	2
New Mexico	1
Oklahoma [1]	25
Oregon	6
Pennsylvania	15
Texas	211
Dysentery and diarrhea:	
Virginia	131
Food poisoning:	
Kansas	1
German measles:	
Arizona	2
Illinois	74
Kansas	19
Maryland	3
Montana	11
Pennsylvania	15
Hookworm disease:	
Louisiana	14
Impetigo contagiosa:	
Kansas	2
Maryland	146
Montana	31
Oregon	55
Jaundice:	
Montana	10

October 1934—Continued	Cases
Lead poisoning:	
Illinois	3
Lethargic encephalitis:	
Illinois	34
Kansas	6
Missouri	1
Oregon	1
Pennsylvania	8
Texas	1
Virginia	5
Mumps:	
Arizona	37
Illinois	163
Kansas	71
Maryland	16
Missouri	10
Montana	11
New Mexico	6
Oklahoma [1]	6
Oregon	111
Pennsylvania	668
Texas	16
Virginia	32
Ophthalmia neonatorum:	
Illinois	3
Louisiana	1
Missouri	1
Oregon	1
Pennsylvania	6
Virginia	1
Paratyphoid fever:	
Illinois	1
Kansas	2
New Mexico	1
Oregon	1
Texas	1
Virginia	1
Puerperal septicemia:	
Illinois	1
New Mexico	1
Rabies in animals:	
Illinois	21
Kansas	3
Louisiana	14
Maryland	1
Missouri	13
Oregon	1
Rabies in man:	
Illinois	1
Louisiana	1
Scabies:	
Maryland	6
Montana	10
Oklahoma [1]	8
Oregon	61
Septic sore throat:	
Illinois	24
Kansas	4
Louisiana	2
Maryland	12
Missouri	57
Montana	7
New Mexico	1
Oklahoma [1]	23
Oregon	3
Virginia	18

October 1934—Continued	Cases
Tetanus:	
Illinois	8
Kansas	1
Louisiana	7
Maryland	3
Missouri	2
Montana	2
Virginia	2
Trachoma:	
Arizona	185
Illinois	2
Kansas	1
Maryland	1
Missouri	6
Oklahoma [1]	7
Pennsylvania	1
Tularaemia:	
Illinois	5
Kansas	5
Louisiana	1
Maryland	1
Missouri	4
Montana	2
Virginia	1
Typhus fever:	
Florida	10
Louisiana	1
Maryland	1
Texas	43
Undulant fever:	
Arizona	2
Florida	3
Illinois	12
Kansas	17
Louisiana	3
Maryland	5
Montana	2
New Mexico	1
Oregon	1
Pennsylvania	2
Texas	1
Virginia	4
Vincent's infection:	
Kansas	8
Maryland	20
Montana	2
Oklahoma [1]	4
Oregon	11
Whooping cough:	
Arizona	29
Florida	27
Idaho	19
Illinois	728
Kansas	160
Louisiana	22
Maryland	194
Missouri	211
Montana	67
New Mexico	46
Oklahoma [1]	33
Oregon	26
Pennsylvania	1,743
Texas	197
Virginia	253

[1] Exclusive of Oklahoma City and Tulsa.

WEEKLY REPORTS FROM CITIES

City reports for week ended Nov. 17, 1934

[This table summarizes the reports received regularly from a selected list of 121 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference]

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Maine:											
Portland	0	------	--------	0	1	5	0	0	1	1	20
New Hampshire:											
Concord	0	------	--------	0	0	0	0	0	0	0	6
Nashua	0	------	--------	0	-------	1	0	-------	0	0	--------
Vermont:											
Barre	0	------	--------	0	0	0	0	1	0	0	3
Burlington	0	------	0	0	0	0	0	0	0	2	9
Massachusetts:											
Boston	4	------	2	2	19	41	0	8	0	40	190
Fall River	1	------	0	21	1	4	0	1	0	3	28
Springfield	0	------	--------	1	1	1	0	0	1	1	38
Worcester	0	------	0	0	1	17	0	1	0	5	40
Rhode Island:											
Pawtucket	0	------	--------	0	0	0	0	0	0	0	13
Providence	2	------	1	0	3	3	0	1	1	12	47
Connecticut:											
Bridgeport	1	1	1	0	4	5	0	1	0	0	32
Hartford	0	------	0	161	2	3	0	0	0	2	45
New Haven	0	------	0	0	2	1	0	1	0	0	42
New York:											
Buffalo	1	------	1	16	9	16	0	10	0	21	153
New York	44	20	10	9	92	83	0	70	7	289	1,308
Rochester	0	------	0	26	2	19	0	2	0	16	60
Syracuse	0	------	0	0	7	7	0	1	0	8	42
New Jersey:											
Camden	0	1	1	1	6	9	0	1	1	3	39
Newark	2	4	0	0	0	5	0	1	0	18	81
Trenton	0	1	0	0	1	16	0	2	0	0	28
Pennsylvania:											
Philadelphia	5	6	2	6	38	48	0	19	2	177	473
Pittsburgh	13	1	2	15	20	32	0	5	0	9	164
Reading	2	------	0	1	0	3	0	0	0	8	18
Scranton	0	------	--------	11	-------	4	0	-------	0	6	--------
Ohio:											
Cincinnati	8	------	4	0	11	30	0	5	0	3	137
Cleveland	11	19	1	3	5	44	0	4	1	29	197
Columbus	10	------	0	8	3	31	0	2	0	3	78
Toledo	2	------	0	6	8	13	0	1	0	6	67
Indiana:											
Fort Wayne	8	------	1	0	4	5	0	1	0	0	32
Indianapolis	13	------	0	2	15	24	0	4	2	10	--------
South Bend	0	------	0	53	1	0	0	0	0	6	19
Terre Haute	0	------	0	0	1	1	0	1	0	0	21
Illinois:											
Chicago	12	5	3	30	53	211	0	33	0	68	694
Springfield	0	------	0	1	4	3	0	0	1	5	17
Michigan:											
Detroit	6	3	1	24	17	75	0	19	4	46	231
Flint	1	------	0	0	3	11	0	1	0	2	19
Grand Rapids	1	------	0	2	2	24	0	1	0	2	33
Wisconsin:											
Kenosha	0	------	0	0	0	10	0	0	0	8	8
Milwaukee	2	------	0	14	3	166	0	1	0	47	91
Racine	0	------	0	0	0	12	0	0	0	0	16
Superior	0	------	0	0	2	1	0	0	0	0	15
Minnesota:											
Duluth	0	------	0	50	2	2	0	0	0	1	24
Minneapolis	2	------	1	35	9	14	1	1	0	14	105
St. Paul	3	------	0	4	5	6	0	0	0	20	48
Iowa:											
Davenport	0	------	--------	1	-------	1	0	-------	0	0	--------
Des Moines	0	------	0	0	0	12	0	0	0	0	18
Sioux City	1	------	--------	2	-------	1	0	-------	0	4	--------
Waterloo	0	------	--------	47	-------	2	0	-------	0	1	--------
Missouri:											
Kansas City	2	------	0	0	11	10	0	2	0	1	91
St. Joseph	4	------	0	0	2	3	0	0	0	1	16
St. Louis	41	------	0	5	7	20	0	15	4	12	200

City reports for week ended Nov. 17, 1934—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
North Dakota:											
Fargo	0	----	1	0	0	2	0	0	0	13	8
Grand Forks	0	----	----	1	----	3	0	----	0	3	----
South Dakota:											
Aberdeen	3	----	----	0	----	2	3	----	0	2	----
Sioux Falls	0	----	0	0	0	0	0	0	0	0	6
Nebraska:											
Omaha	18	----	0	2	3	11	0	6	0	0	51
Kansas:											
Topeka	0	----	0	1	3	1	0	0	0	0	21
Wichita	2	----	0	0	3	2	0	0	0	1	29
Delaware:											
Wilmington	1	----	0	0	0	0	0	0	0	1	29
Maryland:											
Baltimore	3	2	0	15	22	30	0	16	0	26	214
Cumberland	0	----	0	0	0	5	0	1	0	1	12
Frederick	0	----	0	0	1	2	0	0	0	1	3
District of Col.:											
Washington	11	----	0	1	10	26	0	13	1	8	157
Virginia:											
Lynchburg	6	----	0	0	1	5	0	0	1	2	11
Richmond	2	----	0	1	5	8	0	2	1	0	59
Roanoke	8	----	0	0	0	10	0	0	0	3	18
West Virginia:											
Charleston	3	----	0	0	1	12	0	1	1	0	10
Huntington	2	----	----	0	----	2	1	----	0	0	----
Wheeling	0	----	0	1	1	6	0	1	1	6	14
North Carolina:											
Raleigh	----	----	----	----	----	----	----	----	----	----	----
Wilmington	3	----	0	0	1	0	0	0	0	0	15
Winston-Salem	5	----	0	0	1	4	0	1	0	18	17
South Carolina:											
Charleston	0	44	0	0	2	3	0	2	0	0	26
Columbia	0	----	0	0	5	0	0	2	0	0	35
Greenville	1	----	0	0	0	1	0	0	0	0	2
Georgia:											
Atlanta	9	6	0	0	7	9	0	4	0	1	80
Brunswick	0	----	0	0	0	1	0	0	0	0	6
Savannah	0	1	1	0	6	0	0	3	0	1	51
Florida:											
Miami	3	1	0	0	2	0	0	0	0	0	26
Tampa	4	----	0	0	2	1	0	2	1	0	27
Kentucky:											
Ashland	8	----	0	0	0	1	0	0	0	0	----
Lexington	6	----	0	0	2	0	0	1	2	0	24
Tennessee:											
Memphis	5	----	0	0	6	8	0	1	6	9	72
Nashville	9	----	0	0	4	8	0	1	0	12	42
Alabama:											
Birmingham	7	7	1	1	4	7	0	4	2	9	59
Mobile	2	5	0	0	2	1	0	0	0	0	22
Montgomery	4	2	----	2	----	0	0	----	0	0	----
Arkansas:											
Fort Smith	----	----	----	----	----	----	----	----	----	----	----
Little Rock	0	----	0	0	7	2	0	2	0	0	9
Louisiana:											
New Orleans	0	----	0	0	13	8	0	11	3	0	151
Shreveport	0	----	0	0	1	0	0	0	0	0	26
Oklahoma:											
Oklahoma City	2	4	1	0	5	1	0	2	0	0	37
Tulsa	0	----	----	0	----	1	0	----	0	0	----
Texas:											
Dallas	4	----	0	0	5	5	0	1	0	0	60
Fort Worth	5	----	0	0	3	5	0	2	1	0	38
Galveston	0	----	0	0	0	0	0	1	0	0	11
Houston	16	----	0	0	3	3	0	3	0	0	60
San Antonio	1	----	1	0	6	0	0	5	0	0	76

City reports for week ended Nov. 17, 1934—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Montana:											
Billings	1		0	13	0	0	0	0	0	0	4
Great Falls	0		0	1	0	0	0	0	0	0	4
Helena	0		0	0	0	1	0	0	0	0	2
Missoula	0		0	0	0	0	0	0	0	0	4
Idaho:											
Boise	0		0	0	2	0	0	2	0	5	8
Colorado:											
Denver	2	41	0	86	6	124	0	5	0	0	72
Pueblo	2		0	1	1	3	0	0	0	0	3
New Mexico:											
Albuquerque	1		0	1	0	0	0	3	3	4	8
Utah:											
Salt Lake City	2		0	8	1	20	0	0	0	25	37
Nevada:											
Reno	0		0	0	1	0	0	0	0	0	5
Washington:											
Seattle	1			0		3	3		0	5	
Spokane	0	2	2	0	2	0	0	0	0	0	33
Tacoma	0		0	0	1	0	5	0	0	1	26
Oregon:											
Portland	0	2	0	2	5	11	0	3	0	0	67
Salem	0	4		0		1	0		0	1	
California:											
Los Angeles	21	24	1	3	9	37	1	16	2	17	308
Sacramento	1		0	0	4	2	0	4	0	0	27
San Francisco	1	1	0	3	6	11	0	11	0	4	162

State and city	Meningococcus meningitis		Poliomyelitis cases
	Cases	Deaths	
Massachusetts:			
Fall River	1	1	0
Rhode Island:			
Providence	1	0	0
New York:			
Buffalo	2	0	0
New York	5	3	0
Pennsylvania:			
Philadelphia	1	1	0
Ohio:			
Cleveland	0	0	1
Toledo	0	0	1
Indiana:			
Indianapolis	0	0	1
Illinois:			
Chicago	4	0	1
Michigan:			
Detroit	1	0	1
Minnesota:			
St. Paul	0	0	2
Missouri:			
Kansas City	1	1	0
St. Joseph	1	0	0
St. Louis	0	0	1
Nebraska:			
Omaha	0	1	0
Maryland:			
Baltimore	1	1	0
Virginia:			
Roanoke	1	1	0
Kentucky:			
Ashland	1	0	0
Alabama:			
Mobile	1	1	0
Louisiana:			
New Orleans	0	0	1
Texas:			
Houston	0	0	1
Montana:			
Missoula	0	0	1
New Mexico:			
Albuquerque	0	0	1
California:			
Los Angeles	0	0	4

Dengue.—Cases: Atlanta, 7; Savannah, 250; Miami, 5; Tampa, 9.
Lethargic encephalitis.—Cases: Pittsburgh, 2; Cleveland, 1; Kansas City, Mo., 1.
Pellagra.—Cases: Charleston, S. C., 3; Savannah, 2; Tampa, 1; Birmingham, 3; New Orleans, 1; San Francisco, 1.
Typhus fever.—Cases: New York City, 3; Charleston, S. C., 1; Savannah, 1; Montgomery, 2.

FOREIGN AND INSULAR

CUBA

Provinces—Malaria.—According to a report dated November 14, 1934, 34,098 cases of malaria were reported present in the Provinces of Cuba, as follows:

Province	Cases	Province	Cases
Pinar del Rio	5,440	Santa Clara	4,148
Habana	336	Camaguey	6,676
Matanzas	448	Oriente	17,050

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

(NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for Nov. 30, 1934, pp. 1438-1452. A similar cumulative table will appear in the PUBLIC HEALTH REPORTS to be issued Dec. 28, 1934, and thereafter, at least for the time being, in the issue published on the last Friday of each month.)

No new foci or unusual prevalence of quarantinable diseases were reported to the Public Health Service during the week ended November 30, 1934.

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